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ABSTRACT

This oversight hearing was held to review the status of the 21-year-old Educational Resources Information Center (ERIC) program, which is administered by the Office of Educational Research and Improvement (OERI) in the U.S. Department of Education, and to hear administration proposals for the redesign of the ERIC system. This report of the hearing begins with an opening statement by the Hon. Major R. Owens, chairman of the subcommittee, who stressed the importance of the successful management of information and the need for adequate funding for the ERIC system. The report also provides transcripts of statements presented at the hearing and discussion of those statements, as well as prepared statements and testimony submitted to the subcommittee. Statements (and prepared statements) are included from: (1) Chester E. Finn, Assistant Secretary for Educational Research and Improvement, U.S. Department of Education; (2) Lynn Barnett, Chair of the ERIC Technical Steering Committee; (3) Donald P. Ely, Director of the ERIC Clearinghouse on Information Resources; (4) Don Erickson, Director of the ERIC Clearinghouse on Handicapped and Gifted Children; (5) Leslie Bjorncrantz, curriculum librarian and education bibliographer at Northwestern University; (6) Kenneth S. Tollett, distinguished professor of higher education, Graduate School of Arts and Sciences, Howard University; and (7) Charles W. Hoover, retired Director of ERIC. Additional testimony and prepared statements are also included from Natalie Felsher, Montgomery County (Maryland) Public Schools; Paula Montgomery, Maryland State Department of Education; Robert E. Chesley, an educational consultant and former Director of ERIC; and Laurie Garduque, Director of Governmental and Professional Liaison for the American Educational Research Association. (BBM)

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OVERSIGHT HEARING ON OERI (THE ERIC SYSTEM)

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

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HEARING

BEFORE THE

SUBCOMMITTEE ON SELECT EDUCATION

OF THE

COMMITTEE ON EDUCATION AND LABOR HOUSE OF REPRESENTATIVES

ONE HUNDREDTH CONGRESS

FIRST SESSION

HEARING HELD IN WASHINGTON, DC, JULY 30, 1987

Serial No. 100-45

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OVERSIGHT HEARING ON OERI (THE ERIC SYSTEM)

THURSDAY, JULY 30, 1987

HOUSE OF REPRESENTATIVES,
SUBCOMMITTEE ON SELECT EDUCATION,
COMMITTEE ON EDUCATION AND LABOR,
Washington, DC.

The subcommittee met, pursuant to notice, at 9:34 a.m., in room 2257, Rayburn House Office Building, Hon. Major R. Owens (chairman of the subcommittee) presiding.

Members present: Representatives Owens, Williams, Biaggi, and Bartlett.

Staff present: Maria Cuprill, staff director; Laurence Peters, legislative counsel; Robert Tate, legislative analyst; Yolanda Aviles, research assistant; David Esquith, minority legislative associate; and Rebecca Davis, receptionist.

Mr. OWENS. The hearing of the Subcommittee on Select Education of the Committee on Education and Labor will come to order. We are joined today by the ranking member of the subcommittee, Mr. Bartlett, and by Congressman Mario Biaggi, also a member of the subcommittee.

I have an opening statement that I will not read in its entirety. I will summarize it, but the entire statement will be included in the record.

Today we are convened to review a very significant and a very successful program of the Office of Educational Research and Improvement, the Educational Resources Information Center, which is generally known as ERIC. We will also hear Administration proposals for the restructuring of ERIC.

Despite the fact that the 21-year-old Educational Resources Information Center has been slowly strangled by low budgets, it is alive and performing very well. ERIC has been correctly described by Secretary of Education William Bennett's own staff as the world's most visible social science database. Since ERIC is not broken, I am requesting that the Secretary take steps to stop his staff from destroying ERIC by insisting that ERIC must be fixed.

As we head towards the 21st century, it is becoming increasingly clear that the vital resource on which our survival as a free people depends is the successful management of information. We have to become not only information-literate if we are to successfully compete with other world powers, but we also have to commit necessary resources to ensuring the proper functioning of our information systems.

Within such an infrastructure, ERIC has a significant role to play in the development of an improved educational system. With nearly three million users annually providing a nearly equal amount of information to students at colleges and universities as well as to teachers, trainers, and counselors, ERIC is at the vanguard of positive change within our educational system.

ERIC is a unique database emulated and replicated by other Nations. Its strength is partially dependent upon the role which Congress serves in overseeing its operations within the context of OERI. We have undertaken this particular oversight hearing because we have learned that OERI is completing a restructuring of the ERIC system and it is our function to assure that the most rational results emerge from what we understand has been a lengthy review of the system.

It is our intent during this hearing to make sure that what is good and valuable about the ERIC system is preserved. In doing this, we must question whether plans that have been submitted as improvements will in fact benefit this education information system. In particular, we must ensure that before any so-called improvements are carried out, the existing clearinghouses are funded adequately. It is important to note that ERIC has suffered a 47 percent funding reduction in real terms between 1971 and 1986. It is unthinkable that plans for additions to ERIC not take this reality into account.

The Administration's requested budget increase for ERIC would cover only a fraction of its proposed restructuring initiative, which means that ERIC's already declining clearinghouse budgets would be reduced even more in order to fund this proposed restructuring.

The alarming 1983 report entitled "A Nation at Risk" showed us that a great deal needs to be done to drastically overhaul the ways in which our children are educated in this country and to adequately equip our young people with the knowledge and skills for competing with their counterparts in the Soviet Union and other technologically developed Nations. The information provided through ERIC to those influential in crafting our national education policies will play a critical role in this regard. Now more than ever, ERIC is a crucial part of our efforts to improve American education.

[The prepared statement of Hon. Major Owens follows:]

OPENING STATEMENT, CHAIRMAN MAJOR OWENS, SELECT EDUCATION SUBCOMMITTEE, OVERSIGHT HEARING ON OERI (THE ERIC SYSTEM).

THURSDAY, JULY 30, 1987

DESPITE THE FACT THAT THE 21-YEAR-OLD EDUCATIONAL RESOURCES INFORMATION CENTER OR ERIC HAS BEEN SLOWLY STRANGLED BY LOW BUDGETS, IT IS ALIVE AND WELL. ERIC HAS BEEN CORRECTLY DESCRIBED BY SECRETARY OF EDUCATION WILLIAM BENNETT'S OWN STAFF AS THE WORLD'S MOST VISIBLE SOCIAL SCIENCE DATA BASE. SINCE ERIC IS NOT BROKEN, I'M REQUESTING THAT THE SECRETARY TAKE STEPS TO STOP HIS STAFF FROM DESTROYING ERIC BY INSISTING THAT IT MUST BE FIXED.

AS WE HEAD TOWARDS THE 21ST CENTURY IT IS BECOMING INCREASINGLY CLEAR THAT THE VITAL RESOURCE ON WHICH OUR SURVIVAL AS A FREE PEOPLE DEPENDS IS THE SUCCESSFUL MANAGEMENT OF INFORMATION. WE HAVE TO BECOME NOT ONLY INFORMATION LITERATE IF WE ARE TO SUCCESSFULLY COMPETE WITH OTHER WORLD POWERS, BUT WE ALSO HAVE TO COMMIT NECESSARY RESOURCES TO ENSURING THE PROPER FUNCTIONING OF OUR INFORMATION SYSTEMS.

OUR NATION, WHICH IS THE WORLD'S FOREMOST OPEN SOCIETY, HAS MUCH TO GAIN IN THE FULL DEVELOPMENT OF AN INFORMATION SYSTEM INFRASTRUCTURE. ALTHOUGH ERIC IS A RELATIVELY SMALL COMPONENT

WITHIN SUCH AN INFRASTRUCTURE, IT HAS A SIGNIFICANT ROLE TO PLAY IN THE DEVELOPMENT OF AN IMPROVED EDUCATIONAL SYSTEM. WITH NEARLY THREE MILLION USERS ANNUALLY PROVIDING A NEARLY EQUAL AMOUNT OF INFORMATION TO STUDENTS AT COLLEGES AND UNIVERSITIES AS WELL AS TO TEACHERS, TRAINERS AND COUNSELLORS, ERIC IS AT THE VANGUARD OF POSITIVE CHANGE WITHIN OUR EDUCATIONAL SYSTEM.

ERIC IS A UNIQUE DATA BASE EMULATED AND REPLICATED BY OTHER NATIONS. ITS STRENGTH IS PARTIALLY DEPENDENT UPON THE ROLE WHICH CONGRESS HAS SERVED IN OVERSEEING ITS OPERATIONS WITHIN THE CONTEXT OF THE OERI. WE HAVE UNDERTAKEN THIS PARTICULAR OVERSIGHT HEARING BECAUSE WE HAVE LEARNED THAT THE OERI IS COMPLETING A RE-STRUCTURING OF THE ERIC SYSTEM, AND IT IS OUR FUNCTION TO ENSURE THAT THE MOST RATIONAL RESULTS EMERGE FROM WHAT WE UNDERSTAND HAS BEEN A LENGTHY REVIEW OF THE SYSTEM.

WITHOUT FULL CONSULTATION WITH ALL PARTIES CONCERNED MAJOR REVISIONS OF THE ERIC SYSTEM COULD DO MORE HARM THAN GOOD. AS AN EXAMPLE OF THIS, WE LEARNED INDIRECTLY THAT THE OERI HAD PLANS TO MERGE TWO CLEARINGHOUSES. CLEARINGHOUSES ARE ERIC DIVISIONS WHICH SPECIALIZE IN COLLECTING AND ANALYZING LITERATURE, AND PRODUCING INFORMATION ON SPECIFIC EDUCATIONAL AREAS. ONLY THE EFFORTS OF SEVERAL MEMBERS LED TO THE RECONSIDERATION OF THESE PLANS BY THE OERI. AS A RESULT, TWO VERY VALUABLE CLEARINGHOUSES HAVE BEEN PRESERVED, AND CONSUMERS WHO REGULARLY USE THEIR SERVICES HAVE BREATHED A SIGH OF RELIEF.

WE FEAR THAT THERE MAY BE OTHER SUCH UNJUSTIFIED PLANS IN THE PIPELINE THAT WILL AGAIN REQUIRE SIMILAR KINDS OF CONGRESSIONAL SCRUTINY. IT IS OUR INTENT DURING THIS HEARING TO MAKE SURE THAT WHAT IS GOOD AND VALUABLE ABOUT THE ERIC SYSTEM IS PRESERVED. IN DOING THIS, WE MUST QUESTION WHETHER PLANS THAT HAVE BEEN SUBMITTED AS "IMPROVEMENTS" WILL IN FACT BENEFIT THIS EDUCATION INFORMATION SYSTEM. IN PARTICULAR, WE MUST ENSURE THAT BEFORE ANY SO-CALLED "IMPROVEMENTS" ARE CARRIED OUT, THE EXISTING CLEARINGHOUSES ARE FUNDED ADEQUATELY.

IT IS IMPORTANT TO NOTE THAT ERIC HAS SUFFERED A 47% FUNDING REDUCTION IN REAL TERMS BETWEEN 1971 AND 1986. IT IS UNTHINKABLE THAT PLANS FOR ADDITIONS TO ERIC NOT TAKE THIS REALITY INTO ACCOUNT. THE ADMINISTRATION'S REQUESTED BUDGET INCREASE FOR ERIC WOULD COVER ONLY A FRACTION OF ITS PROPOSED RE-STRUCTURING INITIATIVES, WHICH MEANS THAT ERIC'S ALREADY DECLINING CLEARINGHOUSE BUDGET WOULD BE REDUCED EVEN MORE IN ORDER TO FUND THIS PROPOSED RE-STRUCTURING.

WHILE IT IS APPROPRIATE TO REVISE AND RESHAPE ERIC TO MEET PRESENT DEMONSTRATED EDUCATIONAL NEEDS, SUCH RE-STRUCTURING SHOULD RELY ON THE EXPERIENCE, WISDOM AND INPUT OF THE ENTIRE EDUCATION COMMUNITY AS WELL AS ADVICE FROM OTHER ERIC USERS. THOSE WITH VISIONS FOR ERIC'S FUTURE UTILIZATION MUST ALSO BE CONSULTED. RE-STRUCTURING SHOULD LOOK TOWARD THE NEEDS OF THE 21ST CENTURY: THE NEEDS OF EDUCATION FOR GLOBAL COMPETITIVENESS; THE NEEDS FOR PROGRAMS TO EFFECTIVELY EDUCATE DISADVANTAGED

POPULATIONS; THE NEEDS OF HIGHER EDUCATION INSTITUTIONS ATTEMPTING TO HELP MINORITY STUDENTS OVERCOME SERIOUS OBSTACLES; THE NEEDS FOR FUTURE GENERATIONS OF AMERICANS TO BE PREPARED FOR THE CHALLENGES OF THE "AGE OF INFORMATION," AND THE EDUCATIONAL AND EMPLOYMENT OPPORTUNITIES OF TOMORROW.

THE ALARMING 1983 REPORT "A NATION AT RISK" SHOWED US THAT A GREAT DEAL NEEDS TO BE DONE TO DRASTICALLY OVERHAUL THE WAYS IN WHICH OUR CHILDREN ARE EDUCATED IN THIS COUNTRY, AND TO ADEQUATELY EQUIP OUR YOUNG PEOPLE WITH THE KNOWLEDGE AND SKILLS FOR COMPETING WITH THEIR COUNTERPARTS IN THE SOVIET UNION AND OTHER TECHNOLOGICALLY DEVELOPED NATIONS. THE INFORMATION PROVIDED THROUGH ERIC TO THOSE INFLUENTIAL IN CRAFTING OUR NATIONAL EDUCATION POLICIES WILL PLAY A CRITICAL ROLE IN THIS REGARD.

NOW MORE THAN EVER, ERIC IS A CRUCIAL PART OF OUR EFFORTS TO IMPROVE AMERICAN EDUCATION. ERIC'S STRENGTHS FAR OUTWEIGH ANY SO-CALLED "WEAKNESSES" PERCEIVED BY THE REAGAN ADMINISTRATION. WE MUST RALLY TO SAVE ERIC FROM A SLOW DEATH, LEST WE SQUANDER THIS VITAL, AND IRREPLACEABLE, RESOURCE.

Mr. OWENS. I yield, for an opening statement, to Mr. Bartlett.

Mr. BARTLETT. Thank you, Mr. Chairman.

Mr. Chairman, I welcome the opportunity to review the progress of the ERIC system that you provided us at this hearing. I look forward to learning more about how the system is operating and how the system is evolving towards the goal of assisting local practitioners in directly impacting upon improving the educational system in this country.

We sometimes get lost in all of the other kinds of ideas and goals and restructuring and words and flowcharts. We sometimes lose sight of the fact that the purpose of ERIC is an exercise in helping students to become better learners. That can only happen in the classroom, and the goal of ERIC and the goal of this subcommittee is to be certain that the maximum impact is made in the classroom and upon the students of this country.

Now, I note the modest controversy that surrounds the ERIC system in some of the proposals. I note that the controversy is probably the result, more than anything else, of the legacy of the deficit and the discovery by Congress and the American public in the 1980's that there are limitations to Federal spending and, indeed, Federal programs have to begin to set priorities as to which expenditure is more important than others.

I hope that this morning, as we wrestle with the problems and with the proposals surrounding ERIC, that we don't take out that frustration, which is the frustration of the deficit and those spending limitations and priorities, on each other. Having recognized that there are fiscal constraints, we must simply move on and live within those constraints and set our priorities as best we can.

Now, I would note that while a number of our witnesses will lament the loss of spending power of the system to inflation over the last several years, that is a problem which is not unique to ERIC, it's a problem which plagues almost all Federal programs. I would also point out that the ERIC system budget as a percentage of the total OERI budget has increased between the fiscal years 1981 and 1987 from 7.4 percent of the OERI budget in fiscal year 1981 to 9 percent in fiscal year 1987.

Mr. Chairman, I thank you for the opportunity to participate in this hearing, and I thank the witnesses in advance for their input and their assistance in this hearing.

Mr. OWENS. Mr. Biaggi?

Mr. BIAGGI. Thank you, Mr. Chairman. I want to commend you for having this hearing because I think there is a considerable amount of airing is required and some realistic understanding of what some proposed reforms that we are considering relate to the funding of the program.

We know that ERIC is one of the most useful educational information tools of our Nation, and through ERIC educators across the Nation can communicate on a variety of education topics, including teaching and research methods, education of the handicapped and gifted, and a vast variety of subject matters on different education levels and settings.

Nowhere else in the world is such a wealth of information available for use of educators and the general public. It is astounding to think that a doctoral dissertation on teaching fractions to fifth-

graders, which was written at an East Coast university is available to a fifth-grade teacher in the Midwest who is introducing his or her students to fractions.

Efforts to expand the availability of ERIC to more educators and to the general public are commendable. The clearinghouse directors in the Department of Education have demonstrated great leadership in their mutual development of the concept of Access ERIC. Clearly, the amount of public knowledge and the use of the wealth of the ERIC system is a common goal that we should strive for.

However, I think it is unwise to fund Access ERIC by taking monies from the very clearinghouse Access ERIC would be promoting.

I look forward to hearing testimony from all of our witnesses on ERIC and the proposed ERIC redesign. I am only sorry that this redesign was not available last year as we were reauthorizing ERIC. It would have been most appropriate to include in our reauthorization some of the meritorious reforms that have been proposed.

Thank you, Mr. Chairman.

Mr. OWENS. Thank you, Mr. Biaggi.

Our first witness is the Honorable Chester Finn, the assistant secretary for educational research and improvement.

Welcome, Mr. Secretary. As you know, your entire written testimony will be entered into the record. You may proceed as you wish.

STATEMENT OF CHESTER FINN, ASSISTANT SECRETARY FOR EDUCATIONAL RESEARCH AND IMPROVEMENT, U.S. DEPARTMENT OF EDUCATION, ACCOMPANIED BY EDWIN S. DARRELL, DIRECTOR OF INFORMATION SERVICES AND SHARON K. HORN, ACTING DIRECTOR OF EDUCATION LIBRARY DIVISION

Mr. FINN. Thank you, Mr. Chairman.

Mr. OWENS. I was just wondering, considering your very impressive display here, how much time you would need. We would like to have maximum time for questions. Would you need more than 15 minutes for your presentation?

Mr. FINN. I shouldn't think so, Mr. Chairman.

I would like to thank you for the opportunity to appear. It is my first appearance before this subcommittee with you in the chair, and I am honored to do that. I am delighted that Mr. Biaggi and Mr. Bartlett are here as well.

To our knowledge, Mr. Chairman, this is the first congressional hearing on ERIC itself in the 20-year life of the program, and so we welcome this evidence of interest and enthusiasm, which we entirely share, and we appreciate this opportunity to talk with you about the system.

If I take close to the 15 minutes you just allotted me, it may be because we have 20 years of comments saved up to share with the subcommittee this morning. And though I talk quickly, it won't be an easy matter.

I am joined at the table by Edwin Darrell, who directs the information services unit in OERI, which administers the ERIC system, and by Sharon Horn, who directs the education library division

within information services, which administers the ERIC system for OERI. They work on a day-to-day basis with ERIC and are going to be well able to answer a number of questions as well as to help with the presentation.

I might say we brought with us a fair, small sampling of ERIC's wares, and both published version and some of the new electronic materials available, and would be pleased to, at the subcommittee's convenience, either leave behind or organize a demonstration or submit for the record—I don't know whether your record can accommodate electronic materials at this point, Mr. Chairman, but in this information age it should become able to.

Mr. OWENS. We would find it be most useful if you would leave it. [Laughter.]

All of it.

Mr. FINN. All of it. It's yours.

You care about ERIC, and we care about ERIC, and if we didn't think it was important, we wouldn't have been paying a lot of attention to it the last couple of years or exerting the very considerable effort we have been to make it better and more accessible and more serviceable for people.

The easiest thing we could have been done in OERI from my standpoint would have been to let the ERIC system continue on its present course. But the more I have come to understand it in relation to the vast and growing appetite for education information across this country, the more clearly I have understood and Secretary Bennett has understood that that wouldn't be a satisfactory response.

I think the proper point of departure for any discussion of ERIC ought to be the four or five million people in this country who are directly concerned with the provision of educational services, ranging from kindergarten teachers to university presidents, from chief State school officers to Members of Congress, from fourth-grade teachers to school board members. I am not even talking about the 50 million students and the umpteen million parents and sisters and brothers of those students. Just four or five million providers.

They are united by a zeal to know more about education, by a hunger for information about education. They want to know what works. They want to know how many of something there are. They want to know where something has been tried and what came of it. They want to know how to puzzle out a problem. They want to know what experts in a particular field learned about something. They want to know what successful practices in one place might be transplanted to another and so forth and so on.

This appetite for information has been growing, not shrinking, during the education reform movement that has been sweeping the country in recent years. We now find people wanting to know, for example, who has a first-rate history unit that deals with the Reconstruction Era that they might use in their school, which States operate teacher career ladders and how do they work, how many seventh-grade science teachers have themselves actually studied science, how is school reform financed in other States and communities, how can teachers be evaluated, how can principals be retrained, how can parents become more effective education partners?

So we start with a big appetite for education information in this country, and we start with a principle that I believe certainly all of you share and I believe everybody now shares that one of the central responsibilities of the Federal Government in the field of education is to provide people with information about education. Indeed, that is OERI's main duty and main function, and we do our best through a number of mechanisms to carry out, and we have been trying to improve virtually every single one of those mechanisms, including a number of mechanisms that a number of people would just as soon keep as they are even though they don't work terribly well as they are. This has been true of our center for education statistics, of our national assessment of educational progress, of our regional educational laboratories, of our research centers, and of our national diffusion network, and I could go on down a considerable list of parts of OERI engaged in the provision of educational information that we think need to do a better job than they have been and that we have been trying our best to make more serviceable for this huge population of prospective information users.

We haven't succeeded yet. I don't know for certain that we can. Making education research and statistics and successful practices intelligible and accessible to most of the people who need and want them is a challenge that to my knowledge nobody has ever met through all of the years of educational research and statistics in this country.

Certainly, one of the most promising avenues for trying to achieve this is the ERIC system. It has been going for two decades, as you know. It is like a vast warehouse of education information, nearly all of it reliable and much of it good and interesting and potentially useful.

The ERIC system isn't easy to understand after two decades. Organizationally, it is complex. The first chart on the easel illustrates the current structure of the ERIC system and its various parts. Its procedures are somewhat arcane and intricate. Frankly, not very many people actually understand how it operates, and it takes a while to understand that.

But let me try to simplify. Fundamentally, there are two aspects to the ERIC system. First, there are the actual studies and reports and papers and documents that it contains in its database. There are some 265,000 of these documents at the present time, virtually all of them written over the past 20 years. Their numbers grow at the rate of 12,000 or 13,000 a year. They are found and selected by the network of 16 clearinghouses and then they are processed and entered into the system by a central processing facility.

Once they are in the ERIC system, there are several mechanisms by which people who want to read them can actually get hold of them, mainly either by going to a library that has a microfiche collection and reading it on a microfiche reader or by sending money to a document reproduction center that will send you a hard copy if you want one.

The fundamentally important thing to know about these 265,000 documents is that in general they are things that have not been published. They are not books. They are not magazine or journal articles. This is a most curious restriction on what is in ERIC, and

it is one that, frankly, most people don't understand. For reasons that are not entirely clear, the founders of ERIC decided that it was to be mainly a repository for unpublished things. It is a very rich repository of those things, but it is curiously one-sided for an education information system that is designed to be useful to consist almost entirely of things that did not find their way into books or journals or other published sources.

That was the first aspect of ERIC, the actual document base, the database.

The second aspect of ERIC is an extremely elaborate indexing system, intended to enable you to identify the things you might actually want to read. This index includes the documents in the system, of course, and it also includes some 340,000 magazine and journal articles that have been published over the years in some 760 different education journals.

Now, ERIC itself doesn't give you the actual texts of those journal articles, of those magazine articles. If you want to read them, you must get hold of them through some other means. You must get hold of them through a library, through interlibrary loan, by purchasing them from a commercial reproduction house or whatever. ERIC just helps you make a list of the articles you might want to read.

This index can be consulted in a number of ways: modern methods, online computer searching; old-fashioned methods, go to the library and look in a thick volume of indexes, and indexed in important and elaborate ways, to see which things you might want to get hold of. There are several thousand outlets where you can look through the published editions of these indexes to see what you might want to read. Well, I have oversimplified that description of the system, but I think it describes the essence of the system.

As you can see, it is an immense resource, but it has some shortcomings. Let me just mention a few of these.

First, as I said, this vast database does not, in general, contain published materials, though there are tens of hundreds of education books published each year, many of them absolutely first-rate. Indeed the best research generally makes it into published form. Those things aren't in the ERIC system. It does not help you find the books, and while it helps you find the journal articles, it doesn't give you the articles themselves. If you want to look things up in recent books, or even old books, it's not much help to you at all.

Second, this database, by and large, does not contain statistics. It contains research information, but not numbers, except insofar as researchers have previously put the numbers into their studies. If you want to know how many of something there are somewhere or how many of something there were somewhere at some point in the past, you generally can't get numbers out of the ERIC system. It wasn't designed for statistics.

Third, the ERIC system isn't actually designed to answer questions or to evaluate what's in it by itself or to provide you with the best example of something or the three best examples of something. It is designed to provide you with leads to a great many sources and then leave it to you to figure out, usually over a considerable period of time, which of these is of greatest use to you.

When you ask the ERIC system for information, you usually get a great many leads. But if you pursue them—and in general, it takes quite a lot of time and usually a certain amount of money to pursue them, to actually get hold of them and actually read them—you will discover an awful lot of chaff in there with the wheat.

We did a sample search for you before coming, Mr. Chairman. Just by coincidence, I thought we might look up quality education in junior high schools in Brooklyn, a location we selected purely at random. We asked the ERIC system what did it have in it, in its database that had to do with quality education in junior high schools in Brooklyn. I have got with me and will give you the printout.

We got 38 entries out of the ERIC system on this subject. Of these, the ERIC system itself could give you hard copies, readable copies of 24 of them. The other 14 you can't actually read through the ERIC system, but you can read some of them if you go to and find the journals. Now, 34 of the 38 were produced before 1980; that is to say, four of the 38 have come out within the last seven years, and approximately half of the 38——

Mr. OWENS. Probably there hasn't been much quality education in Brooklyn the last seven years. [Laughter.]

Mr. FINN. No comment, sir. [Laughter.]

In approximately half of these 38 items deal mainly with Federal programs of one sort or another. They typically have to do with the evaluation of a Chapter 1 program in a particular school. They have to do with Federal programming, interesting and important, but they only deal with the part of Brooklyn education at the junior high school level that pertains to Federal programs. The other half deal with things that are not Federal programs.

We have also, in addition to bringing you the index of items, we have brought you hard copies of five of the entries that we went ahead and duplicated, and we will submit these to you at the conclusion of the hearing, along with the computer search. You can judge for yourself, Mr. Chairman, members of the subcommittee, how helpful you think these are in actually learning what you might want to learn about the quality of junior high school education in Brooklyn.

My own impression from a look through this is that if you have quite a lot of time, you can learn some things from this mass of information that you will find useful and informative, but it is not going to be easy. Let me caution you before you embark upon this.

The fourth and final shortcoming, which is probably implicit in what I have already said, is that ERIC is not easily managed by people who aren't trained researcher and who don't have quite a lot of time to pour into the search through a large number of bulky documents by themselves. ERIC wasn't actually designed to meet the information needs of practitioners, of teachers, of principals, of school board members, of Members of Congress, of Governors' aides, of legislators, of journalists, of editorial writers. In general, it doesn't meet their needs very well today. Most of them, frankly, don't even know about it. But a great many who do, if you ask them, will tell you that, yes, they tried once or twice, they went looking for something in the ERIC system and they found it so

cumbersome for their purposes that they stopped using it. It doesn't work very well for their purposes.

Our files are full of 20 years of commentaries and reports and studies and evaluations over the years that have all come to essentially the same conclusions about ERIC: the system today is reasonably well designed for scholars who are looking for unpublished research reports and who have a good deal of time and a good deal of talent for looking through scholarly documents. It is no coincidence that the largest single group of ERIC users today are on college and university campuses. The typical ERIC user is a graduate student taking an education course in a college of education, or that person's faculty member. That is the typical ERIC user today. Many of them are teachers come back for a graduate course. But they use ERIC not to improve their teaching, but to write their term paper for the graduate course they are taking enroute to a master's degree or a salary increase or whatever.

It is not even perfectly designed for scholars, I might say. As a professor myself for four years before coming here, I found ERIC extremely cumbersome to use and far too much of what it yielded up for me just wasn't very good. I eventually took to sending a research assistant to the university library to consult ERIC. And, yes, from time to time he brought back nuggets of things that were worth having—but not too often. Now, maybe the problem was that I wasn't a sophisticated user, I didn't know how to ask the right questions. That is entirely possible.

But we need a system that is designed for unsophisticated professors as well as other unsophisticated people who are just trying to get hold of some information. Again, let me say that the reports and studies over the years are virtually unanimous. If the ERIC system isn't even perfect for scholars, it is really not very useful for practitioners and policy makers. It simply wasn't created with them in mind.

I am about done.

This is why we have been exploring improvements. And I am not sure the improvements we have been exploring are sufficiently far-reaching or are sufficiently radical to cure all of the shortcomings that I have been sketching for you this morning. But here is what they are:

In essence, we propose to add three kinds of components to the existing ERIC system. We haven't proposed to delete components from the existing ERIC system, we propose to add some things. We propose to add Access ERIC, to which you already referred. That is the largest and most important of these additions. Indeed, it was suggested to us initially by the council of ERIC directors. We have embraced their idea. It's a terrific idea. It would be a sort of front office for the ERIC system, a user-friendly operation designed to help ordinary people understand and utilize the resources of ERIC in a whole variety of ways.

Secondly, we propose to add adjunct clearinghouses. These would allow topics in fields that aren't well covered in the current ERIC system database to be covered by relatively specialized clearinghouse-like operations.

Finally, we propose to add what we call ERIC partners, to help provide and distill and digest and interpret the database for many,

many categories of nonacademic users at essentially no cost to the Government.

These are relatively modest, incremental changes, Mr. Chairman. It may be that larger and more radical ones will in time be indicated. But we thought it was prudent, after an extended review by experts, by users, by information scientists and others, to undertake these changes first.

Now, I know you are concerned about the adequacy of ERIC's resources. This is a legitimate concern. You understand as well that the Federal appropriation for ERIC is just the tip of the iceberg. An awful lot of people spend an awful lot of money to access the database. We estimate the annual expenditures for ERIC in the $30 to $35 million range—not including the time of the individuals who use it—in the $30 to $35 million range, of which the Federal Government is currently providing $5.7 million.

As I think you know, our fiscal year 1988 request pending before Congress asks for $6.1 million. That is about a seven percent increase. We asked for an increase in fiscal year 1987, but Congress didn't appropriate it. We have asked for a seven percent increase in fiscal year 1988. This very day in some other chamber on the House side, we understand, the Appropriations Committee is marking up the entire Department of Education's fiscal year 1988 budget request, including a seven percent increase for the ERIC system.

Please bear in mind that that fiscal year 1988 budget request for the department as a whole had a reduction of 28 percent across the Department of Education in it. In that context, the decision by the Secretary and OMB and the President to ask for an increase for research and statistics, including ERIC, indicates the considerable importance they assign to this domain.

Sure, were there no deficit or resources were limitless, undoubtedly the ERIC system could usefully spend more money. Almost everything in OERI could usefully spend some more money. But we are firmly convinced that very considerable improvements can be made within current resources as well.

What is required is some flexibility in the system, some capacity for self-criticism, some recognition that just because things have been done in a certain way for a period of time doesn't mean they always have to be done that way forever into the future.

Mr. Chairman, to conclude where I began, the ERIC system is a valuable resource with huge potential to supply people with the information they need and want throughout the education system. Today, in our view, it does not realize that potential.

We welcome your interest. We look forward to working with you and the subcommittee to strengthen and improve ERIC as well as the other parts of OERI in the interests of better education for all Americans. I appreciate the opportunity to talk with you today, and I am sorry it took me 20 minutes to compress 20 years.

[The prepared statement of Dr. Chester E. Finn, Jr., follows:]

REMARKS OF DR. CHESTER E. FINN, JR.

Assistant Secretary of Education

for Research and Improvement

Before the Subcommittee on Select Education,

House Committee on Education and Labor

July 30, 1987

Mr. Chairman, I welcome the opportunity to appear before you and the subcommittee today to discuss the Educational Resources Information Center, known universally as "ERIC." I hope to sketch some of its strengths and weaknesses and to outline its potential for more comprehensive coverage, expanded uses of technology, and wider dissemination of educational information in this era of vigorous school reform to eager consumers such as governors, legislators, teachers and other practitioners, journalists, students, and parents.

First, a bit of background. ERIC was conceived nearly 30 years ago in a feasibility study conducted at Columbia University. However, the blueprint for a national education database did not leave the drafting board until 1966, seven years after the original concept surfaced within the academic community. Now, two decades later, ERIC is probably the nation's best-stocked education database, at least with regard to education research. ERIC contains over 600,000 documents on education research, practice and statistics, all cataloged, abstracted, and indexed for convenient reference. This database is used nearly three million times a year.

ERIC has successfully harnessed some of the latest information technologies as they have become available, from microfiche through computers and now to "Compact Disk-Read Only Memory (CD-ROM)," a system in which an entire encyclopedia can be stored on a disk smaller than a phonograph record. ERIC has contributed to the wider usage of these devices, not only within

the government but also in the private sector and the library community.

As ERIC begins its third decade, we have worked in concert with ERIC Clearinghouse Directors, users, experts in information retrieval, and the Congress to examine strategies for improving the system. In 1985, the Office of Educational Research and Improvement undertook a two-year series of studies to suggest ways in which ERIC could be improved. These studies, which tapped the expertise of researchers, scholars, librarians and practitioners throughout the country, concluded that ERIC was a system of immense but largely unrealized potential. In particular, the studies concluded that ERIC was competently serving the academic community but not doing as well as it should in reaching other critical audiences, including legislators, policymakers, journalists, teachers, and the public at large.

Before I begin to describe our plans to expand ERIC, let me sketch some key features of the current system. The cornerstones of the ERIC system are, and will continue to be, a group of clearinghouses intended to cover the entire field of education. These clearinghouses acquire and review documents. They are supposed to select those of the highest quality and greatest worth for entry into the ERIC database. They prepare indices and abstracts of those documents, as well as periodic reports and digests which cover research in their assigned topic areas.

ERIC also has a Processing and Reference Facility, currently based in Bethesda, Maryland, which coordinates the technical

activities of all the clearinghouses. The Facility maintains the database for the entire system, and prepares a monthly publication, Resources in Education, to announce new ERIC acquisitions. OERI also supports, through a "no-cost to the government contract," the ERIC Document Reproduction Service (EDRS), which prepares microfiche and document reproductions of requested articles.

The private sector is an integral part of the ERIC system. The Current Index to Journals in Education, which summarizes important articles culled from hundreds of journals, and the ERIC Thesaurus, are both published by a private firm. Other companies help disseminate ERIC information. DIALOG, an on-line computer service (and one of three vendors which carry the ERIC database), started in the late 1960's with ERIC as its first database in a pioneering effort to disseminate information over telephone lines to computer terminals in offices and homes. And it is the private sector which is now developing and marketing the ERIC database on CD-ROM, an inexpensive retrieval system which may enable ERIC to become available in schools throughout the country.

In 1985 we started the aforementioned studies of ERIC to prepare for the new contracts competition cycle, which begins next month. We appointed a panel of scholars and experts in information systems, dissemination, library operations and education practice and improvement to study ERIC. This panel included a distinguished librarian from Harvard's Monroe Gutman

Library in the Graduate School of Education, the education policy advisor to the Governor of Missouri, a newspaper reporter from the Dallas Times Herald, practicing school administrators and a director from an ERIC clearinghouse (a complete list of the study panel is attached to my testimony). The panel met in May and August 1986 to react to papers and comments solicited from other distinguished scholars and practitioners. We asked them to identify the strengths and weaknesses of ERIC, and to develop sound strategies for the future.

These critiques pointed out clearly the gaps in the current ERIC configuration and the problems people face trying to use the system. For example, James W. Guthrie and Trish Stoddart from the Graduate School of Education at the University of California at Berkeley argued that ERIC is not a tool teachers find easy to use. "ERIC is operated by academics for academics and ERIC's role in practice improvement remains unresolved," they said. "For all types of clients, including practitioners, the most common purpose for using ERIC is researching a class paper. Although improvement of practice has been viewed from the beginning as a key ERIC goal, practitioners remain the smallest client group. Indeed ERIC appears to be used only rarely for improving practice."

The American Association of Colleges for Teacher Education commented that the system is weak in training, marketing, dissemination and centrally coordinated policy development. Searching of the database was said to be a task for well-trained

researchers, some of the comments said, and there are too few well-trained researchers now, and ERIC does not have the resources to train more.

Issue papers were written covering such areas as technology, quality control, and dissemination, and each paper was reviewed by a reactor panel. Building upon the conclusions of the review and reactor groups and upon an internal OERI assessment of ERIC, OERI produced, and widely disseminated for public comment, a concept paper titled ERIC In Its Third Decade. OERI received over 100 letters, three-fourths of which were from non-ERIC organizations and institutions, which were used as guidance in the development of subsequent proposals. Overall, respondents had high praise for the ERIC database, but agreed that content coverage should be expanded and that greater attention should be paid to dissemination and training.

In March 1987, OERI unveiled a proposed new system configuration to carry out the recommendations for improving ERIC that were suggested by the study groups and by public comments. Our proposal described a system composed of 15 clearinghouses and several critical new system components, all designed to modernize and streamline the ERIC structure, to enhance coverage by placing related content areas within the same clearinghouse, and to place a strong new emphasis on dissemination of practitioner-oriented materials.

We sought to create a purposeful and up-to-date design in place of the extant configuration, which is more the result of

history than design. We proposed to cover some of the gaps in coverage and obsolete structures which impede the unskilled researcher -- a teacher for example, or a parent -- from full utilization of ERIC.

We mailed copies of the proposal to more than 2,000 interested groups and individuals, requesting them to comment. To date, OERI has received more than 150 responses. As a result of public comment and consultation with Congressional staff, a final configuration for the "new" ERIC system was sent to this subcommittee in early May. We changed parts of that design at your request, but at the cost of a purposeful design which would have improved the system more than will now be possible, and which would have enabled the other new components to more easily accomplish their work.

We propose to add three new components to the ERIC system during the next two years: ACCESS ERIC, Adjunct Clearinghouses, and ERIC Partners.

ACCESS ERIC is specifically designed to open up ERIC to educators and policymakers who do not now use the system much. We see ACCESS ERIC serving each of the clearinghouses, and the system as a whole, by providing systemwide coordination of activities such as outreach, product development, and dissemination. This organization will introduce new audiences to ERIC, and will place information and products with the people who need them.

Adjunct Clearinghouses will acquire documents and journal articles for the ERIC database in topic fields that are not now well covered by the major clearinghouses, and will help disseminate information in their particular subject areas. For example, the topics of art, music and the humanities could be more comprehensively covered by an organization or institution with specialized expertise, and commitment to, those subjects. An Adjunct Clearinghouse can supplement ERIC's database in those more narrowly defined topics, much to the advantage of educators and researchers.

Other areas for which we may invite proposals for adjunct clearinghouses include educational policy, private education, and effective secondary schools. We plan to provide only a small amount of seed money to Adjunct Clearinghouses, with the intent of helping groups with the commitment to continue such efforts on their own get started.

ERIC Partners will be organizations or institutions which have a particular interest in education in general, or in a specific discipline included in ERIC. ERIC Partners will actively disseminate ERIC-developed materials to their members or constituents, and will help identify documents or other materials which should be considered for inclusion in the database. We see ERIC Partners as a way to widen participation in this strong education research database and also get help in making the database more effective and more comprehensive.

From the time the system was created, over two decades ago, the federal government has tried to provide high quality information to people in government, academic institutions, education agencies and industry -- in short, wherever someone might need information from educational research. According to the book ERIC: The First Fifteen Years, USOE officials in 1965 envisioned an ambitious information dissemination plan for ERIC. Dissemination of ERIC-produced materials was to be made by any means possible, including mass media, to specific audiences including "research personnel in colleges and universities, teachers, administrators and curriculum supervisors in public and private schools, staff members in State Departments of Education, and other government agencies (Trester, 1981)."

Those were ambitious and worthy goals, but in our view ERIC is now falling short of them. I believe that ERIC needs to become a system that does far more than help the academic and research communities.

In our examinations of what ERIC is, we have also developed an enlarged vision of what ERIC should be. ERIC should be, but is not yet:

- a system that serves teachers, principals, and other practitioners well;
- a system which readily serves a mass media hungry for timely information;
- a system for parents and other members of the public;
- a system that serves education policymakers at the local, state and federal level; and

- a system which works closely with other OERI dissemination programs such as the National Diffusion Network, the regional Laboratories, and the university-based Research Centers.

I do not suggest that ERIC presently serves no segment of these groups, nor do I suggest that ERIC holds nothing these groups of people might find useful. The problem is actually more vexing and subtle than that: although ERIC has archived and cataloged a great deal of information which could be truly useful to each person involved in education -- from elementary school students to state governors -- this information is simply not easily accessible to them in forms they can digest, and in ways they can readily use. Many people in education are not acquainted with ERIC. Even the staunchest defenders of ERIC -- those people who run elements of the ERIC system right now -- agree that ERIC does not fulfill its potential for effective outreach and dissemination.

The ERIC Clearinghouse Directors themselves first proposed solving this problem through the establishment of the premier new ERIC system component that we are now planning, which they called ACCESS ERIC, a simple name which readily describes its purpose -- to increase access to the good stuff in ERIC. The concept developed by the ERIC Directors is virtually identical to what I described to you a few minutes ago, and what we intend to put into place.

Mr. Chairman, ERIC is now a valuable tool for education researchers around the world, not just in the U.S. But ERIC is not yet the tool for education practice and improvement that it

ought to be. It is not yet the force for education reform it can be. It is not yet the easily accessible source of information for teachers, parents, students, school boards and legislatures that it should be. With your support, and that of those who currently operate the ERIC system, we can begin to implement sound plans to make ERIC a system that serves well the different parts of the education establishment with the information they need, in forms they can readily use.

To quote from ERIC In Its Third Decade:

> "We are an information society. ERIC is an information system. It is time for American education to recognize its need for ERIC. It is time for ERIC to better meet the needs of American education."

That, Mr. Chairman, is a quick overview of what ERIC is and what ERIC does, and what will be occurring over the next ten months. My testimony has been predicated on three beliefs: (1) that ERIC has the potential to become the nation's premier source of comprehensive, high-quality education information for many eager audiences; (2) that this will only happen if it widens its content coverage, improves its dissemination mechanisms and increases its visibility; and (3) that our proposal to create new entities and new emphases for the ERIC system will bring about those improvements.

We appreciate your interest in following our progress.

ATTACHMENT

THE ERIC REDESIGN STUDY PANEL

Jim Bencivenga	Director, Information Services, OERI
John Collins III	Librarian, Harvard University (MA)
Kenneth Dowling	Director, Pikes Peak Library District (CO)
Tom Duncan	Education Policy Advisory to the Governor of Missouri
Michael Durso	Principal, Woodrow Wilson High School (DC)
Don Erickson	Director, ERIC Clearinghouse on Handicapped and Gifted Children (Reston, VA)
Steven Frankel	Director of Research, Montgomery County Public Schools (MD)
Debra Gerald	Mathematical Statistician, OERI
Jeffrey Holland	President, Brigham Young University (UT)
Richard Lodish	Principal, Sidwell Friends School (DC)
Bruno Manno	Chief of Staff, OERI
Anne Mathews	Director of Library Programs, OERI
David Plank	Professor, University of Pittsburgh (PA)
Dale Rice	Reporter, Dallas Times Herald (TX)
Lawrence Rudner	Senior Associate, OERI
Marshall Smith	Professor, Stanford University (CA)
Tommy Tomlinson	Senior Associate, OERI
Garry Walz	Director, ERIC Clearinghouse on Counseling and Personnel Services (Ann Arbor, MI)

Mr. OWENS. Thank you very much, Mr. Secretary.

Since you started your testimony, we have been joined by a member of the committee and a former chairperson for this subcommittee, Congressman Pat Williams. I yield to Congressman Williams for an opening statement or any comments he wants to make at this point.

Mr. WILLIAMS. I have no opening statement, Mr. Chairman. But it is good to see my old friend Chester Finn and others here today. Thank you.

Mr. OWENS. Mr. Secretary, I would like to take a few minutes to just get some clarification of some statements you have made here plus some statements you have made in your testimony.

Mr. FINN. Sure.

Mr. OWENS. It might save some time for me just to compress a number of questions I have about cost into one basic question and let you deal with that, since your testimony didn't say very much about cost. At the end you talked briefly about it.

Do you think ERIC has given us good value for the dollars that have been spent by the Federal Government? What is the cost-benefit ratio here? Has ERIC had the capacity, have we provided the funding to give it the capacity, to meet all the needs that you have criticized it for not meeting? What is the price of a published book? Do you expect ERIC to receive published materials the way the Library of Congress receives it, as a free gift? Do you anticipate giving them a budget which would enable them to purchase hardcover materials? What other kinds of similar information systems have you compared ERIC with in terms of the benefits ERIC produces versus its costs?

We have some very elaborate information systems. Probably the most elaborate and most expensive in terms of funding is the Defense Technical Information Center, which you can't even begin to compare with ERIC, the millions of dollars are poured into the funding for that, most of which is Government funding, almost all of which itself is Federal funding. ERIC has the unique property in that for the $5.7 million that you put in, you get so much more out of it from the nonprofit institutions which house the ERIC clearinghouses and from sales of materials.

I was impressed by the gross revenue involved and the small percentage that the Federal Government spends.

So in the few minutes before we have to run for a vote, can you just address the issue of costs and the cost-benefit ratio?

Mr. FINN. I will try, Mr. Chairman, because those are important questions. I did not, incidentally, suggest that ERIC necessarily needs to be the warehouse for all those published books. I do think that one of the services it ought to supply to users who are looking for information is at least good leads as to published as well as unpublished material. That is what it does with the journal articles today. I don't know whether it needs to provide everyone in the country with a book, but it certainly ought to not ignore books as part of its attempt to have a comprehensive system of information for people.

Mr. OWENS. You say they would have to purchase the book in order to properly index it, abstract it, et cetera?

Mr. FINN. Well, a book, in order to index it and to abstract it, sure, just as a journal article. But the surprising number of publishers would almost surely provide review copies if they thought that the ERIC system was interested in reviewing and indexing their books. All the publishers I know provide review copies to an awful lot of people, including a lot smaller outfits than ERIC. I think that is a fair possibility.

But I don't know, the $5.7 million which has held steady for some years, as you know, buys a lot, and it multiplies a lot of other expenditures and investments by other persons. I think that that is a very important asset, attribute, advantage of the system.

On the other hand, I have to say the $5.7 million today goes above all to the adding of the 12 or 13 thousand additional items each year to the database. That is the single biggest thing that it is spent on. I am not sure whether all 12 or 13 thousand unpublished items that are added to the database each year are worth the money that is spent to add them. No, I am not. It's about $70 per item added to the database, and I am not sure that we get $70 worth of good out of every single item that we add to the database.

Obviously, there are no guarantees in this business. You put in the number of things that nobody will ever consult, in order to make sure you have in the things that people will frequently consult, and you can't know in advance. So there is a certain amount of a gamble here.

I think, on the whole, the money is well spent. I can't sit here and assure you that every nickel of it buys something that somebody uses and appreciates using later on.

Mr. OWENS. All right. Will you ponder the question of what comparisons you have made with other systems similar to that while we adjourn for 10 minutes for a vote?

Mr. FINN. Yes, sir, I will think.

Mr. OWENS. Perhaps the members of the audience would like to view the exhibits in the meantime.

Mr. FINN. We will turn it on.

[Recess.]

Mr. OWENS. The hearing will please come to order.

Mr. Secretary, before we were interrupted for the vote, I had asked the question about comparative studies, statistics.

Mr. FINN. Mr. Chairman, we have got and will submit for the record a number of charts that compare such things as ERIC user costs with the user costs of other Federally sponsored information and data retrieval systems. We have done some item costs and user costs comparisons. ERIC, by and large, is a considerable bargain from the user's standpoint today. Its per-use cost is lower than most of the other Federal data systems, and this even at its relatively modest budget level.

Some of the other systems, including the defense system that you alluded to, are, I believe, very largely funded by the Federal Government and have been so over the years.

Mr. OWENS. What are some of the statistics?

Mr. FINN. Well, for example, in terms of the cost per citation out of the information base, the ERIC system, if you want it printed as opposed to displayed on your screen, costs the average user 14 cents per citation, printed out, whereas the national technical in-

formation service at the Commerce Department costs 35 cents per citation, and the Medlines system at NIH or the national library of medicine, I guess it is, costs 20 cents per citation. Those are examples of the user costs of searching through the database through Government-sponsored databases.

Now, obviously, most of the private databases are even more expensive. To follow the same per-citation indicated that I was using, if you use sociological abstracts, for instance, it's 30 cents. If you use the national news index, it's 20 cents, and so on. ERIC is relatively, I think, no doubt because it has been run efficiently by the people that have been running it over the years and because it does generate a lot of other resources besides ours, it's relatively economical from the user's standpoint.

I am not so concerned about its economies, frankly, I guess, as I suggested earlier, as I am about its utility.

Mr. OWENS. On utility, you mentioned the fact that there is a great appetite for information out there, people who are seeking information—journals, as you referred to frequently, I noticed. At any rate, have you done any studies to show that there is a vast sea of potential users out there who don't find ERIC useful? On what basis do you make those statements?

Mr. FINN. It is often hard to quantify something which doesn't yet happen on the basis of its potential to happen. But I am actually going to ask Mr. Darrell here to tell you a 45-second anecdote from a few days that I think illustrates the kind of thing he and Sharon and I have run into for two years. If you would bear with us for just a moment. This involves school principals.

Mr. DARRELL. A little over 10 days ago I had the opportunity with the other program directors in OERI to go speak to the National Association of Elementary School Principals, their principals academy. So what we have was essentially 30 of the top principals in the country in Washington to polish their skills. Asking how many of them had computers, they all had Mac or IBM, and a few had both of them. Asking how many of them used them in their daily education work with teachers, we got about a 60 percent response. We asked them how many of them had used ERIC in the last year: none. How about the last couple of years: one guy said, "Hey, I used it to do my master's."

After we finished the presentation, I had several principals come up and ask questions. One fellow from Massachusetts said,

> Look, I am a principal in a small school. I need a science program because the State mandated it. I went to ERIC and I got a list of about a hundred things to read through. Now, the titles are great, but remember I am the principal. I do everything in my school. I don't have time to read through them. If I get back to it, I will get the abstracts and I have got the same problem.

Now, we will hear later today that Maryland has a similar problem, and I believe that they have already developed a program out of ERIC. But one of the problems we have got is trying to get this principal in the small school in Massachusetts access to that information that is in ERIC in a fashion that he can get into it quickly and inexpensively and put it to use.

Mr. OWENS. Your anecdote reminds me of the statement that the Secretary made in his testimony, written testimony, that reads,

Now, two decades later, ERIC is probably the Nation's best-stocked education database, at least with regard to education research.

My question next to it is: is there a rival for ERIC? Is there some similar outfit that would provide that principal or those principals with a better online retrieval system?

Mr. FINN. Mr. Chairman, there is certainly no rival with respect to unpublished materials. And if what that principal is looking for in the unpublished domain, ERIC is far and away the richest source of candidates for him to look through. But if I were advising that principal as to find what he wants, what he is looking for, I would send him to other organizations for informed advice about what he is looking for from both the published and the unpublished domains and from the world of practice before I would send him to ERIC if I actually wanted to help him actually lay his hands on what he is actually looking for in a reasonable period of time.

Mr. OWENS. You would send him to a variety of databases, you say?

Mr. FINN. Of sources, I said.

Mr. OWENS. Sources. Okay.

Mr. FINN. I might, for example, send him to the research director of the National Association of Elementary School Principals, which is his professional organization. I might send him to the National Science Teachers Association. I might send him to the National Academy of Sciences. I might just send him to a very good library which would be able to use ERIC and many other sources to help him track down what he wants.

The problem is he is not likely to have that library on Nantucket or Marthas Vineyard or wherever he is, and he would have to get on a boat or an airplane to get to the library that might have the additional materials that he is looking for from the published domain and the world of practice.

Mr. OWENS. He would have to get on a boat or a plane to get to either one of them. Right? Published domain or from the unpublished, from ERIC or from any other database, is that what you're saying?

Mr. FINN. He could probably get hold of the ERIC index where he is, but the documents in it he can't get hold of where he is and he can't get the other things—he could by mail if he had time and if he sent money. But he couldn't get hold of these other things where he is. And that's what he wants. He's the principal of the school; as he said, he doesn't have time to make a lot of boat rides to Boston.

Mr. OWENS. Granted that there ought to be an appetite for information out there, in order to survive we are going to have to become more information-literate.

Mr. FINN. Yes, sir.

Mr. OWENS. Certainly professionals. There is a cultural lag, I think, at this point in terms of people who need information and should be using information. Whether they are really doing it or not is another problem. That is one of our problems, you don't have those people who should have the appetite necessarily showing that appetite or understanding that they have a great need and where to satisfy those needs.

Is that the fault or the primary problem of the providers of information, or is there something else that has to take place among our professionals to make them understand? Well, you said teachers don't use it to improve their teaching, they only use it to write papers and for courses. Well, I thought writing papers and taking courses was to improve teaching.

Mr. FINN. Sir, I fervently wish that were true.

Mr. OWENS. Large numbers of teachers are eligible for increases in pay, certainly in the New York City setup, on the basis of courses they take, on the assumption that those courses improve their teaching. So I always equate the courses and the papers with improvement of teachers, that they are practitioners, and the fact that they happen to use ERIC in academic settings does not diminish the fact that practitioners are involved.

You disagree?

Mr. FINN. I don't entirely share your optimism and confidence about the course-taking patterns and what they yield up by way of improved practice, no, I don't.

Mr. OWENS. But we really have no thorough studies of these practitioners and really what their understanding of what their information needs are and how they have to begin, in order to do their job better, to use information more. You indicate that the central responsibility of the Federal Government, the Department of Education, is to provide information. That is a central responsibility.

Mr. FINN. Yes, sir.

Mr. OWENS. Does your budget at the Department of Education reflect the understanding that that is a central responsibility? What percentage of your funds is spent on the provision of information?

Mr. FINN. Well, within OERI, which is just one unit of the Department of Education, virtually all of our budget goes for the provision, the gathering or analysis or provision of information. That is a $70 million request now pending for research and statistics, which, as I suggested, is practically the only increase in a year of decreases in the Department of Education budget. It is not a huge sum in Federal budget terms, but it's an increase.

Our library programs which we also administer, as you know, spend about an additional $135 million a year to assist the Nation's libraries to provide people with information. This continues.

The other many parts of the Department of Education in one form or another provide people with information. I think we are the only part devoted to that and only that. The funding history of OERI, unlike for research and statistics, this doesn't include libraries.

But if you will look at the chart that is now on the easel for a moment, the top line represents the OERI research and statistics budget as a whole over the last 20 years, and you can see what's happened. You can also see that little uptick at the right side. That represents a fairly valiant effort on our part to improve the situation since I have been there, since Secretary Bennett has been there, within the context of an overall very stringent, very severe budget situation.

The lower lines, as you will have noticed, involve the ERIC budget. The rising one is in current dollars, the falling one is in constant dollars. I wanted you to be able to see both those and also the comparison with OERI as a whole over the last period of time.

Mr. OWENS. What would you conclude from that?

Mr. FINN. I would conclude that the recovery that we are attempting these last two years, one which Congress did not help us make in fiscal year 1987 in spite of our request, has a ways to go before it will have done the job that Secretary Bennett and I would like it to do.

Mr. OWENS. But you don't know at this point or you can't give me the figures as to what percentage of the Department of Education's budget is spent on that central responsibility of providing information? If you don't have it now, could you submit it later?

Mr. FINN. We will certainly submit it for the record. We will have to look across the department, not just the OERI portion. But we will submit it, yes, sir.

Mr. OWENS. Would you take a guess at it?

Mr. FINN. I better not, because I can tell you quite precisely what the OERI portion is. It's .046 percent the last time I calculated it.

Mr. OWENS. That was the next question I was going to ask you: what is the OERI portion?

Mr. FINN. Well, we calculated it last January, and it was about half of one percent of the department budget.

Mr. OWENS. Would you say there is a cultural lag in our decision makers at the Department of Education about the importance of education information? You don't have to answer that.

Mr. FINN. Sir, I would suggest that for at least the last couple of years there has been no lag at all.

Mr. OWENS. You said it was unclear why ERIC decided to become a depository, first of all, primarily for unpublished materials. Is that unclear in the original proposal for ERIC?

Mr. FINN. Do either of you want to answer the question about the history?

[No response.]

Mr. FINN. I am not sure. I mean, I am sure it's knowable, I just don't know it.

Mr. DARRELL. There is a book that we sent to you yesterday called "ERIC and the First Fifteen Years." It actually goes back to at least 1958.

Mr. OWENS. Did they make a conscious decision to focus primarily on unpublished material, or did they stumble into it accidentally?

Mr. DARRELL. Well, the conscious decision was to make a system that would be very useful to practitioners. I think as it developed, it just didn't quite develop up to expectations.

Mr. OWENS. You mean, there was an error in their perceptions?

Mr. DARRELL. No, I wouldn't call it an error.

Mr. OWENS. Was anybody else collecting unpublished materials at that time, any other system?

Mr. DARRELL. One of the ideas was to collect unpublished——

Mr. OWENS. Systematically, including information from the Government?

Mr. DARRELL. I don't think that anybody was at that point. That was one of the intentions, but the intention was to go much broader than we are doing now. If you trace back the reports, it is indicated in Secretary Finn's opening statement, you will find that there is a constant concern about what ERIC is not doing. It was not a decision to not make a defective system, and I don't want to make an argument that it is a defective system. I don't think you can make that argument.

But what I am saying is that the decision in setting the system up, it did not include this breadth of other data, and I don't think that you can find a fault there.

Mr. OWENS. I have a very useful, informative booklet that you put out on Japan, "Japanese Education Today."

Mr. FINN. Yes.

Mr. OWENS. On page 87, you have a list of papers commissioned for the United States study of Japan, and there must be at least 12 to 15 articles here commissioned. Approximately what do you pay for a commissioned study?

Mr. FINN. I don't know how much those papers paid. Ordinarily, one or to two or three thousand dollars to the author of a serious paper of that length.

Mr. OWENS. One or two or three thousand dollars?

Mr. FINN. Yes. That would be a standard fee to the author of a commissioned paper.

Mr. OWENS. A Harvard professor, for a commissioned paper, would be paid $2,000 or $3,000?

Mr. FINN. Ordinarily. There have been some that I have known of over many years that have paid $5,000. But that is like the maximum.

Mr. OWENS. Does either of you have more information on that?

Ms. HORN. That's accurate.

Mr. OWENS. That's accurate?

Ms. HORN. Yes, it is.

Mr. OWENS. Could you check it and please submit for the record exactly what you pay for a commissioned paper?

Mr. FINN. Sure.

With respect to the Japan study, I might just add that the Japan study was separately funded. It did not come out of the OERI core budget. It had a grant from the United States-Japan Friendship Commission, which is a separate agency, to carry out its work.

I might also add, if I might, that the staff authors of the volume that you just held up received the products of ERIC searches, I am told, every month during the 18 months or so in which they were doing the work which led up to that publication. So they also used the ERIC system.

Mr. OWENS. My point is, here are commissioned studies which are probably unique, and we have determined that as a result of Japan's amazing performance in the area of commercial competitiveness, we should take a look at their education system. We are almost obsessed with it—rightly so, I think.

These are all studies of Japan: One is "Dominant Psycho-Cultural Factors Influencing Socialization and the Implications of Socialization for School Performance in Japan." Another is "Understanding American Performance: International Comparisons of Analysis

of Mathematical Textbooks in Japan and the United States." "The Influence of Western Philosophy and Theories of Psychology and Education on Contemporary Educational Theory and Practice in Japan." There are other studies which might be exotic, a phrase you used in your testimony. Under normal circumstances, one would consider them exotic, I guess, but certainly in today's atmosphere they are not considered exotic.

Mr. FINN. And they will be——

Mr. OWENS. Will they be found, these commissioned papers, be found anywhere except ERIC?

Mr. FINN. They will all be in the ERIC system. Indeed, I believe they are being processed into it at the present time. In addition, we are bringing out a second volume in a few months which includes the best of the commissioned papers, which will be in book form.

Mr. OWENS. But these commissioned papers have been around for some time now? They were not just done yesterday?

Mr. FINN. Ten, twelve months ago. Not yesterday, but within recent months.

Mr. OWENS. They are not in the ERIC system yet, you say?

Mr. FINN. I am informed that they are being processed into the ERIC system. That also doesn't happen instantaneously. We will be happy to let you know for the record just how many are today in the ERIC system and how many are somewhere en route.

Mr. OWENS. I would wager that the cost—the payment for them probably wasn't enough—was between $5,000 and $10,000 per commissioned paper and that all of that value would go down the drain if you didn't have an ERIC to pick it up, to pick it up right away while it is finding its way into published material, which may take three or four years, and that the downplaying of unpublished material strikes me as a bit strange in a situation where we have finally understood that education is a rapidly changing field and things are happening rapidly.

To have one place that guarantees that it is going to pursue unpublished material, I think, is to the credit of the people who envisaged this, who first constructed ERIC. I think that a lot of vision was shown in that respect, and whereas they may take on other functions, I think the guarantee that unpublished material will be aggressively pursued and acquired, processed, and be available in a database is, I think, not a small undertaking.

Some of the other things that you wanted to do, the popularization of the system so that it can be used by the average American citizen, would cost a considerable amount of money, I think. I think there are people who know how to do that. That is, any good children's librarian would know how to popularize it, to make it easy to use.

A number of things could happen to do that, but that would cost money. It seems to me you would want the first dollars to be spent to guarantee that the database is really adequately accessing the material that is available. And if you are not going to provide additional dollars, is it fair to continue making that criticism about failing to popularize its methods of disseminating its contents?

Mr. FINN. Mr. Chairman, I think it is both fair and necessary. You know the old philosopher's conundrum about the tree that falls in the forest when there is no one there to hear it, did it actu-

ally make any noise? I don't want our ERIC forest to be unpopulated by people who observe the falling and the growing of trees. I think that forest needs to be populated if it's to be worth this investment of the taxpayer's money.

Merely to accumulate in an archival function is a useful thing to do. But it is only about one-tenth of the need that this country has for education information. And just to have it, if people either can't or don't or don't find it convenient to use it I don't think begins to do the job adequately.

Mr. OWENS. Well, one element in popularization or making it more available to the average citizen is to bring the cost down. Already, ERIC's costs are below any other similar system.

Well, let's just go to another point: not designed for statistics. You say that that is a great shortcoming, that ERIC is not gathering statistics. Should it? Is there no other instrument available for that? And what would it really cost for ERIC to tool up to provide that function on an ongoing basis? Just clarify first what you mean when you say it should focus more on gathering statistics. You admit it has statistics in the documents that it accesses, there are statistics there. You want it to play a more aggressive role in compiling statistics from those documents and gather statistics itself, raw data? What is it that you want?

Mr. FINN. Okay.

Mr. OWENS. What do you think ERIC should be doing when you said it could be improved in that respect?

Mr. FINN. I think it should be retailing statistics to people who want them. If you, for example, wanted to know how many seventh-grade male teachers are there in the New York City schools because you thought that the seventh grade was a particularly important year for students to have male role models in the classroom. So you want to know what proportion of seventh-grade teachers in New York are male, and you wanted to compare that in New York with, let's say, Los Angeles and Chicago just to see which one had more male teachers in the seventh grade, larger proportion of male teachers in the seventh-grade classroom.

I don't think you should have to call all three different city school systems to find that out. I think you ought to be able to call one place. Indeed, I think you ought to be able to get this over the phone from one place. There ought to be a place that trades in statistics, that has data like that up to date and at its fingertips. The ERIC system today doesn't do that. It doesn't provide data.

You can call our toll-free number at OERI and Vance Grant will give you an answer. He will find it on his shelf somewhere. We are not without resources for filling statistical requests, but it really is about three people and a toll-free number in our office of information services that does that today.

The numbers exist, obviously. New York City knows how many seventh-grade male teachers it has and Chicago does and Los Angeles does. But you can't find that out today from the ERIC system.

Mr. OWENS. And you would conclude that ERIC clearinghouses could do this with their present budget and present personnel? It is doable, they have the capacity?

Mr. FINN. It is doable. I don't know whether the clearinghouses are the proper exclusive retailer of this kind of information or

whether some other component of the ERIC system. Maybe one that doesn't exist today should be the supplier of this information to the person who calls up, or it may be that the clearinghouses should have the statistics within their purview available for the user. It may be that the clearinghouse that deals most directly with teachers and teaching, for example, should have the information—I was just dreaming up this as an example—rather than a single central statistics place.

But I do believe that when the Governor of a given State calls up and says, "Hey, we're considering such-and-such. How many other States have such-and-such," that is the kind of question people want answers to. In general today, the ERIC system doesn't answer those questions.

Mr. OWENS. Do they have the capacity to do it?

Mr. FINN. Yes, sir.

Mr. OWENS. You think they presently have the capacity with their present budgets and their present personnel to do it, but they are just not doing it? Is that your statement?

Mr. FINN. No, sir, I am not suggesting that they are belligerently refusing to do something sensible. We found the clearinghouse people, the overwhelming majority, to be extremely competent, energetic, sensible people who are trying to do a good job. But the system today doesn't even comprehend that statistics would be part of what it trades in. Statistics aren't even part of its assignment today, and they ought to be, in my opinion.

Mr. OWENS. They ought to be part of the assignment, but you won't admit that they would need additional funds and personnel to do it?

Mr. FINN. Sir, first of all, everything costs a little something, some things cost more than a little something. It may be that the statistics about something as fundamental as teachers are more important than the last 500 unpublished works that we are archiving today out of those 13,000 that we are adding to the database today. It may be that there is a trade-off that ought to be made. I am not sure, but I am not going to reject that possibility.

Mr. OWENS. In your RFP that you will be submitting shortly that will be available—in August, I think?

Mr. FINN. Yes, sir. August 10.

Mr. OWENS. It's an RFP inviting proposals on the clearinghouses?

Mr. FINN. Yes, sir.

Mr. OWENS. Will you require that they have the capacity for that function for statistics, the gathering of statistics?

Mr. FINN. I think Ed wants to answer this question.

Mr. DARRELL. What we are going to ask the new competition to do is to identify databases or statistical information in their content areas which meet the technical standards which have recently been published by the center for statistics. The idea is that CES, which is part of OERI, will then assist ERIC in applying these standards to select databases to be abstracted and indexed for entry into the ERIC database and to identify areas that we consider high priority to collect additional materials.

This is not yet in the position of putting statistics online completely in ERIC.

Mr. OWENS. Are you going to require that any applicant have a database already?

Mr. DARRELL. No.

Mr. OWENS. Applicants who have ideas and nothing exists already, they're going to start from scratch, they will be considered also?

Mr. DARRELL. What we want to do is go to the experts in the clearinghouses, say, help us identify statistical information that should be in there that we can then turn over to our statistical experts to help to get in there.

Mr. OWENS. I am on another question already. On the RFP, will you require that all applicants have some existing database already, or will you allow people who have good ideas about what they want to do to apply and be considered?

Mr. DARRELL. Yes. Certainly, if they have good ideas, they should apply.

Mr. OWENS. They don't have to have an existing database?

Mr. DARRELL. No.

Mr. OWENS. Will you require that they make in-kind contributions similar to those that are now made by the sponsors of ERIC clearinghouses? You won't require in-kind contributions?

Mr. DARRELL. We have encouraged that. Actually, I'm not sure if it's legal for me to answer this question, is it?

Mr. OWENS. What's illegal about it?

Mr. DARRELL. Because the RFP, the notice of it has been published. And my assumption is that dissemination from this room is broad enough that it's not illegal. So let's go ahead. We are encouraging in-kind contributions but we——

Mr. OWENS. You are urging in-kind contributions, but you will not require it?

Mr. DARRELL. That's right.

Mr. OWENS. It is possible that we may lose the great advantage we presently have whereby with $5 million we generate, the amount of money we put in, $5 million is——

Mr. DARRELL. I don't think you should underestimate——

Mr. OWENS. It's only 4.1 percent of the total. We may lose that advantage in the process if new applicants or the applicants who may be selected don't have the capacity to make that kind of contribution.

Mr. DARRELL. I don't think you should underestimate the amount of in-kind contributions that the clearinghouse sponsors make now. There is some debate as to whether urging that is a favor to the incumbents or not. We aren't using that as a sole criterion in any way, shape, or form. But if somebody were to suggest that they could provide further services, certainly they ought to put it in their proposal, and we would expect to read it. But we aren't expecting to use that as a cut on anything.

Mr. FINN. Mr. Chairman, of the $30 million or so that I was talking about earlier, by our estimates roughly $1 million of that represents the in-kind contributions by the actual clearinghouse sponsors, $1 million. The rest comes from various users who pay various amounts of money to gain access to various things that are within the system.

Mr. OWENS. The Federal contribution is at present between four and five percent of the total amount of gross income generated by the activity. Do you accept that figure?

Mr. FINN. No, sir, I don't. I know where you got it because it was in some of my earlier briefing material as well.

Mr. OWENS. I might have gotten it from you.

Mr. FINN. It starts with about $130 million figure as the total for ERIC. About $100 million of that $130 million is somebody's estimate of the value of the time of the people who sit in a library and use the ERIC system. There is imputed wages there of users, and I don't regard that as a legitimate part of a cost calculation of what the ERIC system is actually spending or receiving.

I think that a $30 million estimate, which is exclusive of people's time, users' time, is a more accurate estimate of the total income and expenditure of the ERIC system, of which the Federal Government provides roughly a sixth.

Mr. OWENS. One-sixth?

Mr. FINN. Or a fifth. It's 5.7 out of roughly 30, 33. A fifth or a sixth, yes, sir.

Mr. OWENS. Are you determined to maintain that ratio in your new setup?

Mr. FINN. Well, sir, most of that ratio——

Mr. OWENS. Or act in a way which guarantees that we don't lose that invaluable contribution?

Mr. FINN. I believe that our proposals will have the effect of increasing the total resources going into the system from all sources, because several of our proposals—let me cite in particular the idea of adjunct clearinghouses and the idea of ERIC partners—are tiny amounts or zero amounts of Federal money designed to trigger or leverage or invite the use of other resources for these purposes.

I think the effect of our changes would be to increase the total resources in ERIC.

Mr. OWENS. That assumes that they have something to offer when they come.

Mr. FINN. Well, sir, if they don't, they won't be accepted when they propose to join in.

Mr. OWENS. But that contradicts what was said before, that you're not going to require that they have something to begin with, a database to offer.

Mr. FINN. No, sir. I don't think so. Your previous question had to do with the 16 mainline clearinghouses.

Mr. OWENS. No.

Mr. FINN. I thought it did.

Mr. OWENS. I said, the new RFP, will the RFP, in inviting new applicants, require that those applicants have something to offer in order to apply? Do they have to have an ongoing operation already, or can they start from scratch?

Mr. FINN. If you're talking—any applicant for any program of which I have knowledge has to demonstrate the capacity to carry out that which they are proposing to do, and demonstrating institutional capacity is a standard part of every application for every one of our programs.

Now, the 16 clearinghouses, I thought you were asking whether the 16 clearinghouses for which there will be RFP's have to have

statistical databases in place before we would consider them. The answer to that question is no.

Do they have to have the institutional capacity to be clearinghouses according to the terms of the RFP? Yes, indeed.

In addition to the 16 clearinghouses, the other entities that we are proposing, the adjunct clearinghouses, the ERIC partners, Access ERIC and so on, they must also demonstrate the capacity to do that which they are proposing to do before we can consider them for inclusion in the system. We are not looking for fly-by-nights who just say, "Hey, I'd like to be part of the ERIC system. Count me in," though I hope a lot of people with something to offer will want to join.

Mr. OWENS. Do you project the startup cost for any new entity? Any entity which is not a clearinghouse, would they have startup costs added to the regular budget, and will they be given a period of time before they would be expected to become operational?

Mr. FINN. I guess the startup cost is included in the first year of activity. I imagine the first year of activity would be slower than the second year of activity because any new entity does take a while to actually get up to speed.

Mr. OWENS. Would we have a deficit in service?

Mr. FINN. No, sir, we won't have a deficit in service. We will have a delay before the service increases as much as it will eventually increase.

Mr. OWENS. You don't foresee new entities replacing old entities then? You talk only about adding entities, but this RFP is wide open. It says you're starting from scratch. They can apply for any part of the clearinghouse operation, any part of the ERIC operation, not necessarily just the ERIC Access or the ERIC partners. The RFP will be open for new clearinghouses; am I correct?

Mr. FINN. Well, sir, you want all qualified applicants to be able to apply to administer clearinghouses, I presume. So do we. A full and fair competition with all comers. Indeed, one of my great regrets about the ERIC system is that there has been so little competition for clearinghouse contracts in recent years. As far as I can make out, the last time this was competed, only two of the 16 clearinghouses had more than one applicant for them. This is not a good way to run any program that I know of. It does not encourage competition and peer review. I hope that we will have lots of qualified applicants.

Mr. OWENS. Well, I fully endorse competition, but I hope that we won't yield and change the standards so that we lose—the users lose and the Federal Government loses—because we throw away all of the advantages that we have presently and the contributions that are made by those that are there already.

I am going to yield for questions from my colleagues now, but I have a number of questions I have not covered yet which I will submit to you later for replies.

Mr. FINN. We would be pleased to do that.

[Information to be supplied follows:]

Educational Resources Information Center (ERIC) Oversight Hearing, July 30, 1987, Washington, D.C.

Supplemental Questions for the Honorable Chester E. Finn., Jr.
(to be submitted for inclusion in the hearing record)

1. Please furnish the charts which compare ERIC user costs with user costs of other federally sponsored information and data retrieval systems.

2. What percentage of the Education Department's budget is spent on providing information? What percentage of OERI's budget is spent on providing information? Please include materials to substantiate the responses given.

3. Exactly how much money was paid for the commissioned papers listed in the Department of Education publication Japanese Education Today? Please answer regardless of the source of payment.

4. The OERI legislation places a great deal of emphasis on improving educational opportunities for specific groups such as minorities, women and disadvantaged populations. How do you plan to give priority attention to these equity areas in the new procurements you are planning for the ERIC improvement effort?

5. How does the ERIC system work with other Education Department programs with similar information provision functions such as the Civil Rights Act Title IV Centers, the Drug Education Initiative, Magnet Schools, the Student Financial Aid Information Center and others? You have mentioned fine arts, private education and education policy as three contemplated scope areas for adjunct clearinghouses. What efforts will you make to help some of the above-mentioned programs to establish adjunct ERIC clearinghouses?

6. What specific steps is the current ERIC system taking to serve minorities, women, and disadvantaged populations and cover educational equity content areas with depth and quality?

7. What steps will be taken to ensure that representatives of the ERIC system, user and intermediary populations will be significantly involved in the decision-making process and management of ACCESS ERIC? (for example, in determining which activities ACCESS ERIC will undertake and how they will be undertaken.)

8. If one or more adjunct clearinghouses are funded, what provisions will there be to ensure adequate quality

control? The phrase "quality control" is intended to include both the process of indexing, abstracting and cataloguing the documents which go into the ERIC system and the process of evaluating the merits of particular documents in order to determine whether they should be included in the ERIC database. What steps will you take to ensure that all adjunct clearinghouses strictly follow the procedures contained in the ERIC Processing Manual?

9. Given that fine arts, private education and education policy materials are all presently contained in the ERIC database, albeit not in separately identified clearinghouses, what justification do you provide for funding separate clearinghouses for each as opposed to simply providing increased funding for the present clearinghouse network and providing that these subject matter areas be more adequately covered?

10. What plans will be developed before the fact to ensure that in the event an adjunct clearinghouse closes, its operations will be smoothly and rapidly reincorporated into the clearinghouse structure?

11. What steps will be taken to ensure that an adjunct clearinghouse which, after fiscal year 1988, receives no federal funds, meets the same quality control standards as the ERIC clearinghouses? (The same meanings of the phrase "quality control" indicated in question number 7 are intended to apply here as well.)

12. What steps will be taken to ensure that institutions recruited for the ERIC Partners initiative will be broad based and inclusive?

13. In the forthcoming RFP will new applicants be required to show how they will provide some in-kind contributions?

14. Will new applicants be required to prove that they are an integral part of an institution which has long-term stability?

Question 1.

Please furnish the charts which compare ERIC user costs with user costs of other federally sponsored information and data retrieval systems.

Answer

ERIC's prices are the lowest in the industry. The following comparison chart compares ERIC user costs with those of other federally sponsored information retrieval systems that are similar to ERIC.

Cost Comparison of Online Use of ERIC and Other Selected Databases (using Dialog Information System)

Federally Sponsored Databases 1/

	ERIC	NTIS	AGRICOLA	MEDLINE
Online Connect Time ($ per hour)	$ 30	69	39	36
Offline Print Rate ($ per citation)	.14	.35	.20	.20
Online Type or Display Rate ($ per citation)	.10	.25	.10	.05

Private Databases

	ERIC	Nat.News. Index	Magazine Index	Psych Info	Soc Abstr	NEXIS 2/
Online Connect Time ($ per hour)	$ 30	84	84	55	60	>100
Offline Print Rate ($ per citation)	.14	.20 1/	.20 1/	.20	.30	15 + .01 per line
Online Type or Display Rate ($ per citation)	.10	.10 1/	.10 1/	.35	.20	

1/ NTIS - National Technical Information Service/U.S. Dept.of Commerce
AGRICOLA - U.S. National Agricultural Library
MEDLINE - U.S. National Library of Medicine

2/ NEXIS is a full-text and bibliographic information system containing many databases.

3/ Bibliographic citations only (no abstracts)

Comparison of ERIC and U.S. Department of Commerce/NTIS
Report Document Cost and Availability

		ERIC	NTIS
For documents up to 500 pages on microfiche (average ERIC document is 150 pages, or 2 fiche)		$ .78/title (up to 5 fiche)	$ 6.50/title
Paper Copies	1 - 25 pages	$1.85	$ 9.95
	26 - 50 pages	$3.70	$11.95
	51 - 75 pages	$5.55	$13.95
Maximum turnaround time for shipping		5 days	3-4 weeks
Users searching ERIC online with Lockheed Dialog can order from terminal		$1.00/Title	$ 1.00/Title

Question 2.

What percentage of the Education Department's budget is spent on providing information? What percentage of OERI's budget is spent on providing information? Please include materials to substantiate the responses given.

Answer

While the Department of Education does not maintain budget tables with a category for "providing information," we have identified some of the major Departmental programs that provide information, publications, or technical assistance.

The Department of Education's budget for FY 1987 is $19.63 billion, of which approximately $153 million (or .8 percent) is spent on activities that directly provide information. These activities include:

FY 1987 Information Providing Activities (in $000's)

Research and Statistics (core OERI budget)	$63,600
ECIA Chapter 2 Secretary's Discretionary Fund Dissemination Activities (e.g.NDN)	12,200
LEAD Program	7,177
Chapter 1 Technical Assistance Centers	3,600
Chapter 1 Sourcebook	100
State Educational Agency Desegregation Program	15,800
Desegregation Assistance Centers	8,200
Women's Educational Equity Act publications center	584
Bilingual Multifunctional Service Centers	10,000
Bilingual Education Clearinghouse	1,000
Bilingual Evaluation Assistance Centers	735
Schools Without Drugs	2,066
Alcohol and Drug Abuse Centers	3,000
ED Support for National Institute for Drug Abuse	500
Follow Through Resource Centers	523
TRIO (Educational Opportunity Centers)	9,209
Recruitment and Information Clearinghouses (OSERS/SEP)	1,200
Regional Resource Centers (OSERS)	6,700
Utilization and Dissemination Projects (RSA/NIDRR)	4,540
Dissemination Activities (OVAE/NCRVE)	1,500
Curriculum Coordination Centers (OVAE)	837
Dissemination Grants (FIPSE)	80
DEPARTMENTAL TOTAL FOR INFORMATION PROVISION =	$153,151

OERI's FY 1987 appropriation for Research and Statistics of $63.6 million is devoted entirely to generating, analyzing, synthesizing and disseminating information.

Question 1.

Exactly how much money was paid for the commissioned papers listed in the Department of Education publication Japanese Education Today? Please answer regardless of the source of payment.

Answer

Sixteen papers were commissioned, at a total cost of $43,450. The average cost for each paper was $2,715. See Attachment A for a list of each paper, and its cost. These 16 papers were funded by a grant from the Japan/US Friendship Commission.

In addition, two studies were funded which involved new data collection and analysis rather than summaries or synthesis of existing research. The cost of these two studies was $29,885. These studies were completed and funded by the Center for Education Statistics, OERI. A total of $73,335 was spent for all eighteen reports listed in attachment A.

All of the commissioned papers and study reports are available through ERIC.

Question 4.

The OERI legislation places a great deal of emphasis on improving educational opportunities for specific groups such as minoritites, women and disadvantaged populations. How do you plan to give priority attention to these equity areas in the new procurements you are planning for the ERIC improvement effort?

Question 5.

What specific steps is the current ERIC system taking to serve minorities, women, and disadvantaged populations and cover educational equity content areas with depth and quality?

Answer

Traditionally, the ERIC system has addressed the concerns of minorities, women, the disadvantaged, and handicapped populations. All of the clearinghouses routinely address equity issues as they relate to their specific subject areas. ERIC has over 3,000 documents that are referenced to educational equity, and clearinghouses will continue to collect information on this topic under their new contracts.

The importance ERIC has given to these areas is further shown by the fact that three clearinghouses--the Clearinghouse on Urban Education, the Clearinghouse on Rural Education and Small Schools, and the Clearinghouse on Handicapped and Gifted Children--place highest priority on these topics in their document acquisitions and their publications. The new contracts for these clearinghouses will continue to support the concerns of minorities, women, the disadvantaged, and the handicapped. For example, the Clearinghouse on Urban Education will continue to cover the education of blacks, Puerto Ricans, Asian and Pacific Americans, immigrants, and refugees in all locations; the Clearinghouse on Rural Education will still focus on Mexican Americans, American Indians, and migrants in all locations.

Women's education issues and studies are mainly covered by the Clearinghouse on Social Studies/Social Science Education and this will continue to be the case under the new contract. In addition, concentrated activity in any of these areas can be addressed by a proposal to establish an adjunct clearinghouse.

Question 5.

How does the ERIC system work with other Education Department programs with similar information provision functions such as the Civil Rights Act Title IV Centers, the Drug Education Initiative, Magnet Schools, the Student Financial Aid Information Center and others? You have mentioned fine arts, private education and education policy as three contemplated scope areas for adjunct clearinghouses. What efforts will you make to help some of the above-mentioned programs to establish adjunct ERIC clearinghouses?

Answer

ERIC has always attempted to acquire ED or other government-developed documents, and ERIC information is extensively used by ED managers and staff (e.g. the Drug Education Initiative, Magnet Schools) as they plan new programs and initiatives. ERIC Clearinghouses periodically participate in joint ventures with other ED programs, such as co-sponsorship of conferences or publications. They have also distributed ERIC materials at many program-sponsored meetings.

As part of our ERIC redesign, we will stress that ERIC increase its efforts to work intensively and systematically with other ED, and other Federal and non-Federal, information providers. Within OERI, Central ERIC will coordinate a consortium effort between the National Diffusion Network (NDN), the Labs and Centers, and the ERIC clearinghouses. This consortium will enhance the dissemination of information and deliverables, and will allow skills and expertise to be shared between the consortium membership.

The new regulations for NDN include provisions for providing information about the ERIC system. Other acquisition efforts have been initiated to ensure that all ED publications and reports will be available in ERIC.

Finally, OERI staff is putting substantial efforts into informing ED staff, and their contractors and grantees, about our plans to support adjunct clearinghouses. In a recent outreach effort, Central ERIC staff met with the Center for Health Promotion and Education, Center for Disease Control (CDC) to discuss dissemination of school health materials through ERIC to schools, education, and library communities. CDC expressed interest in proposing an adjunct clearinghouse on school health education.

Central ERIC has also received expressions of interest in the adjunct program from the National Governors Association and the National Alliance for Business. We will widely publicize, as part of the competition, that adjunct clearinghouses can provide opportunities to expand national information dissemination efforts in areas as diverse as drug education or magnet schools.

Question 7.

What steps will be taken to ensure that representatives of the ERIC system, user and intermediary populations will be significantly involved in the decision-making process and management of ACCESS ERIC? (For example, in determining which activities ACCESS ERIC will undertake and how they will be undertaken.)

Answer

We will ensure that ACCESS ERIC will effectively promote the ERIC system and enhance the system's use by education administrators, policymakers, teachers, journalists, and the public. The ACCESS ERIC contractor will be required to establish an advisory board representing ERIC system members (including the Clearinghouses), users and potential users, librarians and educational practitioners and administrators. The advisory board will also include individuals with expertise in ACCESS ERIC's functional areas, such as marketing, assessment, and product development.The board will be consulted and involved in the operations of ACCESS ERIC, and will provide advice on the conduct of its contractually required activities, including the review of plans, products, and overall progress.

Question 8.

If one or more adjunct clearinghouses are funded, what provisions will there be to ensure adequate quality control? The phrase "quality control" is intended to include both the process of indexing, abstracting and cataloging the documents which go into the ERIC system and the process of evaluating the merits of particular documents in order to determine whether they should be included in the ERIC database. What steps will you take to ensure that all adjunct clearinghouses strictly follow the procedures contained in the ERIC Processing Manual?

Answer

We will require adjunct clearinghouses to identify and acquire, but not necessarily process, documents in their scope area. The adjunct staff will be required to use the ERIC Processing Manual to guide their selections and to guarantee that the technical standards for ERIC documents are met. The documents acquired by the adjunct clearinghouse may be forwarded to the ERIC Clearinghouse which covers the scope area of the adjunct, where it would be processed (i.e. indexed and abstracted) for entry into the ERIC database. Thus, documents that were acquired by the adjuncts would most likely receive two quality control screenings.

Central ERIC (OERI Staff) will also be responsible, as part of its monitoring function, for ensuring that all of the ERIC Clearinghouses, including the adjuncts, adhere closely to the quality control requirements in the ERIC Processing Manual. As needed, Central ERIC and the Facility will arrange for training and discussion of acquisition and processing activities at the technical meetings and other appropriate times. Free copies of the ERIC Processing Manual will also be provided to each adjunct and adjuncts will be placed on the Facility's mailing list for periodic updates of the manual.

Question 9.

Given that fine arts, private education and education policy materials are all presently contained in the ERIC database, albeit not in separately identified clearinghouses, what justifications do you provide for funding separate clearinghouses for each as opposed to simply providing increased funding for the present clearinghouse network and providing that these subject matter areas be more adequately covered?

Answer

The adjunct clearinghouses will complement the work of the ERIC clearinghouses. ERIC clearinghouses all have extensive scope areas of responsibility, and it would be difficult, if not impossible, to hire experts for all the areas they cover. The adjuncts will attract more resources into the ERIC system, and will give more organizations a feeling of ownership and commitment to building the ERIC database and to using ERIC resources to serve their constituents.

OERI will support only a modest part of the operational costs of adjunct clearinghouses, providing incentive funds to encourage adjuncts to join the ERIC system and to support some of their first year start-up and acquisition responsibilities. OERI expects that adjuncts will receive most of their operational support from outside of OERI.

We also anticipate that there are numerous government and privately supported national clearinghouses (e.g. on dropouts) and education information and resource centers that could be encouraged to become adjunct clearinghouses.

Question 10.

What plans will be developed before the fact to ensure that in the event an adjunct clearinghouse closes, its operations will be smoothly and rapidly reincorporated into the clearinghouse structure?

Answer

Although OERI does not plan to fund adjuncts after their first year, they will be selected in part on their commitment for continued service on a "no-cost to OERI" contract basis.

If for unforseen reasons, an adjunct should close, and no new adjunct is formed to take over that scope area, the full responsibilities for acquisitions and dissemination of information in the adjunct's area would be given to the appropriate ERIC clearinghouse(s).

There should be little discontinuity in services as a result of the termination of an adjunct clearinghouse, since the appropriate ERIC clearinghouse would quickly assume responsibility for acquisitions and related work in the adjunct's scope area.

Question 11.

What steps will be taken to ensure that an adjunct clearinghouse which, after fiscal year 1988, receives no federal funds, meets the same quality control standards as the ERIC clearinghouses? (The same meanings of the phrase "quality control" indicated in question number 8 are intended to apply here as well.)

Answer

The same quality control procedures and criteria for entering documents into the ERIC database will apply equally to all clearinghouses (adjunct and regular), irrespective of their funding status.

As discussed in Question 8, adjuncts will be carefully monitored. If an adjunct was fulfilling its responsibilities to help the ERIC system, a "no-cost to OERI" contract would be established or renewed. If the adjunct was not performing satisfactorily, OERI would not renew its "no-cost to OERI" contract and would remove its name from the list of adjunct clearinghouses.

Each adjunct will be expected to submit a final report and request for continuation one month prior to the contract end date to allow time for OERI to decide on a "no-cost to OERI" contract renewal.

Question 12.

What steps will be taken to ensure that institutions recruited for the ERIC Partners initiative will be broad based and inclusive?

Answer

ERIC clearinghouses already have standing arrangements with over 1200 organizations to collect documents and reports for the ERIC database. ERIC Partners will represent the formalization and expansion of these current arrangements, with a greater emphasis on the dissemination of ERIC materials to constituent groups by such organizations that become ERIC Partners.

The range of current arrangements is extensive and broad based, and with an increased emphasis on attracting ERIC Partners we anticipate that this initiative will reach many new organizations and institutions--public and private, commercial and nonprofit. We will also encourage collaborative efforts with other publicly and privately supported organizations.

We will particularly look to state and local education agencies, teacher centers, education organizations, and associations to become "ERIC Partners," willing to gather valuable new information for ERIC, and agreeable to providing ERIC information to members and constituents.

Question 13.

In the forthcoming RFP, will new applicants be required to show how they will provide some in-kind contributions?

Answer

No, the Department is prohibited from requiring contractors to provide in-kind contributions. Nevertheless, host institutions and organizations with ERIC clearinghouse contracts have substantially contributed their own resources to supporting the clearinghouses. Approximately 20 percent of clearinghouse costs in FY 1986 came from such in-kind contributions, and we expect, even in the absence of explicit requirements, for such support to continue under the new contracts. Naturally, more would be welcome.

Question 14.

Will new applicants be required to prove that they are an integral part of an institution which has long-term stability?

Answer

Clearinghouse contractors must demonstrate strong institutional, organizational or corporate capability and commitment to operating an ERIC clearinghouse. To demonstrate such capability and commitment, offerors usually must provide evidence of stability and experience in successfully performing related work.

Attachment A

Papers Commissioned for the United States Study of Education in Japan

Title	Author
The Development of Postwar Educational Orientation and Policies in Japan	Edward R. Beauchamp University of Hawaii *2,000
Developmental Perspectives on the Education and Economic Activities of Japanese versus American Women	Mary Jean Bowman and Machiko Osawa University of Chicago 3,900
An Analysis of Cognitive, Affective and Behavioral Characteristics of Students in Japan	Leigh Burstein and John Hawkins Center for the Study of Evaluation, University of California at Los Angeles 3,000
Vocational and Occupational Training of Non-College Bound Youth	Robert Evans, Jr. 2,250 Brandeis University
The Quality and Socioeconomic Status of U.S. Teachers	Eva C. Galambos 2,100 Researcher and Consultant, Atlanta, Georgia
The Quality and Socioeconomic Status of Teachers in Japan	Misao Hayakawa 3,000 Ichimura Gakuen Junior College Inuyama, Japan
Career Counselling for Non-College Bound High School Seniors: Descriptive Data from 4 High Schools	Patricia Horvath 5,000 Fulbright Scholar Tokyo, Japan
An Analysis and Comparison of Science Education in Japan and the United States	Willard J. Jacobson 9,910* Teachers College Columbia University
The Influence of Class Management and Student Guidance upon Academic Work at the Lower Secondary Level	Tokuo Kataoka 2,000 School of Education Hiroshima University
The Influence of Western Philosophy and Theories of Psychology and Education on Contemporary Educational Theory and Practice in Japan	Hideo Kojima *2,000 Nagoya University
Education in Japan: The Creativity Issue	Catherine Lewis 2,500 School of Medicine University of California, San Francisco
Management of Classroom Discipline in Japan and the Role of the Elementary School Teacher	Lois (Tanuchi) Peak 1,500 Graduate School of Education, Harvard University
Understanding American Performance on International Comparisons: An Analysis of Mathematical Textbooks in Japan and the United States (grades 7-12)	Harold Stevenson Center for Human Growth and Cognitive Development University of Michigan 19,9
Postsecondary Plans of U.S. and Japanese High School Seniors: An Introductory Comparative Analysis	Carol Stocking and Glen David Curry 5,000 Department of Medicine University of Chicago
Education and Labor Force Skills in Postwar Japan	Koji Taira University of Illinois at Urbana-Champaign and Solomon B. Levine University of Wisconsin, Madison 4,00
Occupational Information, Placement and Choices for the Japanese Youth	Shunichiro Umetani 1,7cc Japan Institute of Labor, Tokyo, Japan
Dominant Psychocultural Factors Influencing Socialization and the Implications of Socialization for School Performance in Japan	Merry White 2,00c Harvard University
Personal Income Distribution and Its Influence on Education in Japan	Masakazu Yano 2,00c Research Institute of Higher Education, Hiroshima University

*Center for Statistics funds

Mr. OWENS. I yield to Mr. Bartlett.

Mr. BARTLETT. Thank you, Mr. Chairman.

Mr. Chairman, I want to go back just a minute to your concepts, Mr. Secretary, proposing that we make the ERIC information far more accessible to local practitioners in a way that will obtain maximum results to get the results of a rather large amount of research into the classroom and into the users.

First of all, let me ask you a question about what the system looks like and how it's used today if you have a way to quantify that. I noticed on page 4 of your testimony you quoted from a study from the graduate school of education at the University of California at Berkeley. That study argued that ERIC is operated by academics for academics and ERIC's role in practice improvements remain unresolved. It went on to say that practitioners remain the smallest client group.

My question is do you have any quantifiable way of determining who is using ERIC now and what number of requests are made by the junior high school principals in Brooklyn or other nonresearcher but practitioner, either as a percentage or as a number?

Mr. FINN. I am going to ask Sharon to take a crack at the numbers for you.

But let me say first we can't quantify those who either give up in discouragement after they tried once and haven't come back since, or the number of people who might like to use it if they knew about it but don't know about it.

On the basis of current inquiries, Sharon, can you help?

Ms. HORN. On current ones, particularly for Brooklyn, I would have to get that and submit it for the record.

Mr. BARTLETT. I am not so much interested in Brooklyn as I am in Dallas. [Laughter.]

Ms. HORN. Well, even for Dallas, we would have to also submit that for the record.

Mr. BARTLETT. But for the Nation as a whole, in terms of the number of requests that come in from practitioners.

Ms. HORN. There are two specific studies that have been done over the period of the last five years. One is the King study, which the majority of the data that you see on all of these charts have been submitted not only for the record but throughout all the testimony that I think most of us will have here today.

From that specific data, with regard to practitioners, let's see, a third of the population of people concerned with education specifically said that they knew about ERIC but they also said that they needed to know more.

With regard to the specific numbers, 52 percent of administrators said that they did use ERIC, of practitioners. I could give you researchers, but that was not the question that you asked.

Mr. BARTLETT. My question is: of all the inquiries that ERIC clearinghouses receive during the year, you transmit essentially a bibliography, as I understand, of all the inquiries you receive, how many of those inquiries are from practitioners?

Mr. FINN. Let me give you one from the clearinghouse inquiries, which I am told in 1986 totalled approximately 115,000 inquiries to clearinghouses. Of those, we are told that 37,000 were practitioners. About a third.

Mr. BARTLETT. About one-third.

Mr. FINN. Yes. Now, I have to remind you that a number of those are teachers and principals who are consulting ERIC because they are enrolled in graduate study themselves and though they are teachers during the day, they are consulting ERIC in connection with the courses that they are taking at night.

I know Mr. Owens doesn't approve of my distinction, but I think it's an important one.

Mr. BARTLETT. Well, under the improvements that you would make, the improvements that you have suggested for the current year, which are the three changes, can you describe for us how it would be different? And perhaps just take the example that you used for the junior high school principal or the inquiry of the quality education among junior high schools in Brooklyn. As I heard you say, the answer that one would get back would be a bibliography of 38 entries. Some of those copies would be available, I am trying to recall, but most would not. But some would not be available from ERIC? How would you envision it to be different? If a junior high school principal in Brooklyn wants to have some information on a particular curriculum, how would he use ERIC today and how would he use ERIC two years from now if you make your improvements?

Mr. FINN. Okay. If he wanted information about a particular curriculum, it probably wouldn't come up under the heading of quality education in junior high schools in Brooklyn. So the particular 38 items that I looked for earlier might not be the way he would look for it. He would probably look under sixth-grade science curriculum or whatever it was.

Mr. BARTLETT. Let's just say he wanted information on a particular subject to put to use in his junior high school.

Mr. FINN. Okay. The way it would be different is, first of all, if he hadn't a clue how to start, he could call up Access ERIC, which doesn't exist today, on a toll-free 800 number and say,

> Hey, I need to find out some stuff, and I understand this ERIC system might be able to help me. Can you tell me how? Can you get me started? Can you point me in the right direction?

Somebody at Access ERIC would first of all take his phone call and be there when the phone rings and say,

> Yes, there are several ways you can get started. The clearinghouse on such-and-such might be able to help you, and you may want to call them. You might want to go to the ERIC partner located on Livingston Street where the New York City public schools would be operating an ERIC partner outlet for educational information and where you would go.

As a matter of fact, I think currently the New York City public schools on Livingston Street, I believe, are already an outlet for the current database, so he could do that today.

But if you were in Dallas, you might need to go to an ERIC partner run by the school system, which isn't doing it today, and say, help me find this material out of this vast database.

The partner doesn't exist today. The Access ERIC doesn't exist today. In addition, an awful lot of the material that exists today, as I suggested, is in kind of unpublished and largely undigested form.

One of the other changes that is going to occur, I believe over the next few years is we will have more ERIC digests produced by this

system. This is an aspect of ERIC we haven't even talked about today. We brought some samples which we will submit for the record. These are two- and three- and four- and five-page little publications, usually written by the clearinghouses, which attempt to sum up a body of information for a practitioner to use. Now, there are about 200 of them in existence today. The system has produced about 200 of these over the life of 20 years and 16 clearinghouses. I believe that the output of this kind of digested material needs radically to increase and that that junior high school principal will be able to get hold of it.

Now, I don't honestly know whether the curriculum he is looking for will be in the ERIC database or whether the ERIC database is the best way for him to find it. So I cannot sit here and guarantee you that he is going to get what he needs two years from now under the changes that we are proposing. All I can tell you is that the odds are greater than they are today.

Mr. BARTLETT. Let me switch over then to the competition that you are about to have.

Mr. FINN. Yes, sir.

Mr. BARTLETT. I wonder if you could describe—and I was glad to hear the chairman indicate his support for competing the contracts and the RFP's, because that was clearly stated in the law and the reauthorization that we made—how would you expect to do things differently to encourage competition? How many applicants would you expect for each of the clearinghouses? And what are you doing to promote a healthy competition for the next round?

Mr. FINN. Well, sir, let me say what we're doing now and then say some about what we are not doing now. Some of what we're doing now involves having published in the Federal Register a notice that this competition for clearinghouses is going to commence on August 10 and that copies of the RFP will be available then with a due date—I hope sufficiently far after the availability date that people will have time to fill out and submit competent proposals.

By putting this notice in the Federal Register and, I believe, by sending word of it out through other means that this is going to happen, we have made the existence of this competition known. I presume we will be having a meeting of prospective applicants to answer questions and fill in anything they don't understand from the rules and the instructions.

Is that correct?

Ms. HORN. That's exactly correct. We plan to send out approximately 4,000 of the requests for proposals to all of the colleges of higher education across this country. We usually go to the funding office in that specific institution, and they in turn will take it and pass it on to the appropriate people that would be interested in it as well.

Mr. FINN. We will then run a peer-reviewed selection process to judge the applications that come in. But let me repeat a point I made earlier. The last time this happened, before I got here, of the 16 clearinghouses there were actual competitions for only two. Only two of the 16 had more than one applicant. It was our hope that others would also want to apply and that we would have a full-fledged competition for many of the clearinghouses.

I don't know whether that's going to happen. One of the things that we were not allowed to do when Congress voted to oblige us to keep the exact 16 clearinghouses in their exact format as they are today, one of the things we were not allowed to do——

Mr. BARTLETT. Congress does the same thing with military bases, incidentally. So we make errors like that for the Pentagon as well as most other Federal departments. But, go ahead.

Mr. FINN. I take your point.

We could not do some of the things that might have encouraged competition, which was to figure out more coherent packages of subject matter that might have fitted together in different ways, that other organizations might have found serviceable from their point of view, and felt more able to compete for. I honestly believe that by obliging us to compete 16 clearinghouses unchanged, Congress has given an unfair advantage to the incumbents in the upcoming competition. That is my honest belief. We will run a fair competition with everyone who applies. But I don't think it's going to be as good a competition as it would have been if the existing system hadn't been frozen in place.

Mr. BARTLETT. One other question. I do detect, from reviewing the written testimony submitted that we will hear later on, some resistance to change. Do you find—which is understandable, I suppose, but not particularly helpful—do you find support for the improvements or the direction of the improvements that you are proposing among ERIC directors that we haven't heard from? Do you find support from users, from practitioners, or do you find your indication of support from researchers? Where do you find your indications of support for making changes similar to what you are proposing?

Mr. FINN. The operators of the current system, clearinghouse directors and others who operate the current system for us—and, as I said, in general do a very good job of it within the terms of the current system—are supportive of some of the changes that we are considering, most especially the idea of Access ERIC, which was their suggestion in the first place, and which we have embraced because it's a good suggestion and it is the single biggest change we want to make.

They have raised more doubts and equivocations about other changes that we are considering, and the research community has, I will say, been ambivalent because the suggestion that ERIC should become more useful to practitioners implies to them that it will in some sense become less useful to researchers.

Now, the prospective—the practitioners, who we would like to add to the audience of ERIC users, insofar as we have been able to get them to focus on ERIC at all, say, "Yes, that's the kind of information we would like and those are the ways we would like to get hold of it, and that would be a big help to us if you can do that. But, you know, ERIC for 20 years hasn't been much help to us, and so you're going to have to show me"—it's been sort of the Missouri attitude—"that these changes are going to make ERIC more useful to people for whom it hasn't been very useful in the past."

As I say, it's hard to describe the response of an audience that doesn't exist or that hasn't existed but I believe is out there and eager and hungry. I could cite you lots of individual examples of

people who say, "Yes, we'd like that. Can you actually do that for us?"

Mr. BARTLETT. Thank you.

Thank you, Mr. Chairman.

Mr. OWENS. Mr. Biaggi?

Mr. BIAGGI. Thank you.

I think you have indicated that one of the problems with the system is not enough teachers and educators are using it. Obviously, some of them don't know about it. What steps are you taking to overcome that?

Mr. FINN. Sir, a great many of them don't know about it. That's absolutely correct. We have tried to work through their professional organizations a lot, and I am hopeful that most of their professional organizations will want to become ERIC partners.

Indeed, that was one of our strongest motives for the ERIC partner idea, the thought that a whole lot of teachers and other practitioners, professional organizations, not just at the national level but the State and local levels as well, would want to become ERIC partners and would therefore have a stronger incentive to make knowledge of ERIC available to the members.

There is no reason in New York—to come back to the New York example—that the UFT, the teachers union in New York City, shouldn't itself be an ERIC partner or one of its teacher centers be an ERIC partner.

Now, it's very difficult, with about 4 million practicing educators in this country, for us to directly communicate with all of them. We need intermediaries to do even that. And I think the professional organizations are probably the best ones that we've got among practitioners. The school principals associations, for example, would I think become ERIC partners. They might even want to consider being adjunct clearinghouses.

We have not done mass mailings to 4 million educators, no, sir. We have tried to persuade others that the materials here could be useful to them, and we have tried through these digested materials that I showed you a moment ago to give examples and some of the professional organizations distribute these to their members. I am told, for instance, that the association of school administrators distributes the digests that have to do with school management to its members, all those school superintendents around the country. That's an example of a partnership in place today and one that I am told works.

Mr. BIAGGI. Has your experience indicated that there is an increase in participation, or has it plateaued?

Mr. FINN. I would like to get you the data rather than trusting to an impression. My impression is that while utilization has slowly grown over the years, it has not grown nearly so rapidly as either the appetite or the content of that database.

Mr. BIAGGI. If the Appropriation Committee doesn't give ERIC any Access funding, will you proceed with Access ERIC? And if you would say yes, how do you propose to fund it?

Mr. FINN. Sir, if we get none of our increased appropriations requests for any of the things that we are seeking to do in OEIR, we are going to have to regroup on a lot of fronts.

Mr. BIAGGI. Stop. Answer my question directly.

Mr. FINN. The answer to your question directly is: I don't know today. It's a decision we haven't made, it's a decision I would like not to make, and it's a decision that since we haven't made it I can't share with you.

Mr. BIAGGI. Well, my understanding is that for Access ERIC you need some $500,000. Is that a correct understanding?

Mr. FINN. That is our planning figure. I expect we could do some good with less. I am not sure we could do much good with a whole lot less.

Mr. BIAGGI. You're asking for $300,000; is that correct?

Mr. FINN. That is the total increase in the ERIC budget, yes, sir.

Mr. BIAGGI. Well, why don't you just simply ask for what you need? Why should you give the Appropriations Committee the opportunity to cut when perhaps they won't, or if they exercise an age-old practice as while they are asking for x, let's give them a little less? Why don't you ask them for what Access ERIC needs? And if perchance you're fortunate, they will give you the $500,000 and that's wonderful, but if you start off with $300,000, obviously the consequences are plain. It doesn't make sense, knowing the cost of a program, to come in under budget, under the request. I would suggest that you do that.

How do you see the involvement of the clearinghouse directors on Access ERIC?

Mr. FINN. I hope it will be intense and constant. As I said, it was their idea. It's a need that they perceived before I perceived it. They have made clear in a variety of communications with us that they would like to be involved with it, that they see this as serving their purposes. I think they are going to be myriad mechanisms by which they're involved with it, which I hope they will unveil during their testimony in a few minutes.

Mr. BIAGGI. You made reference to adjunct clearinghouses. What effect will they have on the existing clearinghouses? Bearing in mind that we have one at Columbia, I want to be very parochial. I feel passionate about those things in New York City. [Laughter.]

Ms. HORN. Obviously.

Mr. FINN. The impact of the adjunct clearinghouses on the 16 large clearinghouses, in my opinion, will be to add to the totality of ERIC, not subtract, either resources or workload. We have a number of areas that are not well covered even in that 13,000-item-a-year database that I was describing. We don't do a very good job of covering—I could give you a whole list—we don't do a very good job of covering arts and humanities, we don't do a very good of covering secondary education, we don't do a very good job of covering private education. It's a long list.

I hope that the adjunct clearinghouses will come forward in the areas that we don't now well cover in the existing clearinghouses and will enable us to do a more comprehensive job at minimum cost for the education world as a whole.

Mr. BIAGGI. Two questions. You don't contemplate eliminating any of the clearinghouses, existing clearinghouses?

Mr. FINN. No, sir, we don't contemplate it. We once contemplated some changes.

Mr. BIAGGI. Elaborate, please.

Mr. FINN. We contemplated some changes in the assignments of some of the clearinghouses before we were forbidden by Congress from pursuing that idea. So, at the present time, obedient to Congress, we do not contemplate any changes in the 16 clearinghouses.

Mr. BIAGGI. Do you feel badly about it?

Mr. FINN. Yes, sir.

Mr. BIAGGI. About obeying Congress?

Mr. FINN. No, sir, not about obeying Congress, only about Congress' judgment in this case.

Mr. BIAGGI. Well, I guess, on occasion we take issue with the Administration, whichever Administration, or the executive's decisions.

Mr. FINN. I think some of my colleagues over on the other side of the Hill are aware of that, too.

Mr. BIAGGI. Yes. I understand that.

What about the funding for the adjunct clearinghouses, where do we get that?

Mr. FINN. Well, sir, as planned, and within the current budget, the funds are an almost derisory amount of money. We budgeted for three of them at $50,000 each, a total of $150,000, as I recall.

Is that the right budget figure for fiscal year 1988?

Mr. DARRELL. Yes.

Mr. FINN. This was simply an attempt to establish the idea and to see if we could launch a few of these. The idea of the $50,000 grants, frankly, is to be a startup payment, not to be followed, not to be succeeded. We hope that institutions will bid for adjunct clearinghouse contracts because this is something they want to do. People will tell me that that is naive on my part. It may turn out to be. It may be no one will apply, but I would like to give it an opportunity to see if it can happen.

Mr. BIAGGI. Knowing the private sector, I think they would jump at the opportunity to have input into these areas because they would be in a position to submit their own perhaps self-serving point of view and their material might be—well, be just that, self-serving. If it's used as a resource, it could ultimately down the line affect the conclusion. Do you feel any danger in that?

Mr. FINN. No, sir. The adjunct clearinghouse materials being added to the database will have to follow the same standards and peer review processes as the 12 or 13 thousand items a per year that are being added by the 16 clearinghouses today. There is no change in standards or expectations or quality control.

We have a larger problem, which is that our critics say that there is inadequate quality control of what is in there today, that they get too much chaff with the wheat when they ask ERIC a question and that too many things are in the database today that aren't of much value. But we are not solving that problem with the adjunct idea, but we are certainly not reducing any standards. As I say, they may not be high enough today.

Mr. BIAGGI. Thank you, Mr. Chairman.

Mr. OWENS. Mr. Williams?

Mr. WILLIAMS. Thank you, Mr. Chairman.

Mr. Finn, with the 16 clearinghouses, how is money assigned to these clearinghouses with regard to the decision process for decid-

ing how many thousands of dollars each clearinghouse should receive? What criteria go into that decision?

Mr. FINN. I am going to ask Ed or Sharon to take that. I know the range is roughly $100,000 from the lowest to the highest in terms of total amount. But as to how the staff decides which is how much, I am not sure I know the answer.

Do you, or do you?

Ms. HORN. I will try this. Basically, what has been done, I think, in the past—and Chuck Hoover, who is in this room could probably give you a better answer than I am going to try, and I think when he gets up here perhaps he will even answer the question better—is the fact that depending upon the background of the proposal, we give them a basic number of what is called FTE's, and that is basically an itemized figure that people in the field understand of what they can bid for. I don't want to give you those numbers because this is confidential information and it hadn't come out yet.

But basically, a number is given, and then a proposal is made based on those numbers of FTE's and other things which stands for full-time-equivalent employee. That plus the other requirements that are in the RFP determines the proposal and the basic calculation that the field gives us as they submit their proposal. Then not we here at this table, but contracts and grants negotiates with them once they're in the competitive range to determine the actual amount of money that is awarded. That varies from clearinghouse to clearinghouse.

Mr. FINN. Congressman, I have always operated on the perhaps utterly naive assumption that some of these fields and areas had more information in them than others do and that some needed more work than others need and that was what ultimately worked itself out here.

Mr. WILLIAMS. Perhaps. That is what I am wondering about. I notice that the breakout of the funding for those clearinghouses from 1973 projected through 1988 would indicate that almost without exception the clearinghouse for adult career and vocational education has received the most amount of money in every year, with the exception perhaps of one or two, and junior colleges have received the least amount of money. I am simply trying to rationalize that in my own mind. What would be the reason for that?

Mr. FINN. I am sorry to sit here like a bump on a log, Congressman, but I don't know the answer to that.

Sharon, do you want to try again?

Ms. HORN. Thanks to the acting director of ERIC, who is sitting behind me, Pat Coulter, what has happened in the past—and I don't want to address what is currently in the RFP—but it's based upon the number of documents that they put into the system over previous years that has had a determining factor as to their basic budget.

Now, I am not saying that's the way it's going to be, but that's the way it's been. In other words, adults put in—the adult clearinghouse puts in more, junior colleges submit less.

Mr. FINN. Sounds like performance-based funding, Mr. Williams.

Mr. WILLIAMS. It would seem to me that the value of ERIC—and I think it has both a current and a potentially very great value—could be fairly significant to small schools that don't have other

ways to access good information. Many of those small schools are in rural areas, and yet the clearinghouse entitled rural education and small schools always ranks well below the middle in funding, and this year ranks, I guess, about tenth or eleventh. If it's performance-based only——

Ms. HORN. Of acquisitions into the system. In other words, acquisitions into the database.

Mr. FINN. What has been measured, for better or worse, has not been services rendered to prospective users. What has been measured over the years is research located and added to the database. So there may well be less research added under the heading of rural and small schools, and that would account for it, not the potential use by rural schools of the information in the database. That has not been the main work of the clearinghouses to service clients. The main work of the clearinghouses has been to add information to the database.

Mr. WILLIAMS. The microfiche collections around the country are, I assume, the way in which people living in various places can access ERIC.

Mr. FINN. Can access the actual pages of the actual documents. You can get into the index through computers and other ways that don't involve microfiche. But if you want them to read the document——

Mr. WILLIAMS. You need the microfiche?

Mr. FINN [continuing]. You need the microfiche or a hard copy which you can send for through the mail if you send a check.

Mr. WILLIAMS. There are in the State of Virginia, according to the information I have before me, 21 ERIC microfiche collections. There are in the States of North Dakota, South Dakota, Nebraska, Wyoming, Idaho, and Montana fewer microfiche collections available to people than there are simply in the State of Virginia.

Mr. FINN. That's correct.

Mr. WILLIAMS. Now, the people of the Sate of Virginia can walk across the 14th Street bridge and get most of the information they need, whereas the constituents for those of us who live in that quadrant up around Wyoming, Montana, Idaho, have, it seems to me, more difficulty accessing the kind of information that they need in order to have the proper share of the education literature.

So my question goes to how is the determination made as to where to locate these collections and in what number?

Mr. FINN. It's a perfectly fine question. It's not a determination. It's organizations that want to house these microfiche collections pay to subscribe to the microfiche service, and then they house them. Typically, these are academic libraries on college and university campuses. The vast majority of the microfiche collections are on college and university campuses in the library.

We don't assign these. We don't give them out for free either. People that would like to house a microfiche collection pay for it and house it and operate it, and you are absolutely correct about the distribution of them. It's geographically a little skewed. But I have to say that if only five, if it is, institutions in Montana ask to house microfiche collections—that's all that there are today—we haven't tried to direct that.

Mr. WILLIAMS. I wonder if it should be more a product of trying to drive the information about the availability of these from the Washington office. Maybe not intentionally, ERIC through the years may have been operated under the basis of catch as catch can, and many places that are located one, two, three thousand miles from here may not know as much about the availability of ERIC as they might if there were a more aggressive attitude on the part of OERI and—NIE?

Mr. FINN. OERI, sir.

Mr. WILLIAMS. Yes. I remember when we talked that through not too long ago. [Laughter.]

Can you comment on that, Chester?

Mr. FINN. Yes. I said in my opening remarks maybe these changes we are contemplating aren't radical or far-reaching enough. Among the things they have not contemplated has been any attempt at central direction of accessibility of the actual microfiche collections. But a similar thought was in our minds when we proposed the creation of these ERIC partners as outlets for the ERIC information. Any school system in the State of Montana could become an ERIC partner and would begin to acquire, if not a full microfiche collection, at least knowledge about how to use the system and how to get hold of things, and maybe an index such that one of the five existing microfiche collections in Montana could be consulted by the ERIC partner in the Callasville public schools or wherever the ERIC partner opened up its operation.

I would like local school systems and State education agencies and local public libraries to want to be ERIC partners, to learn about the system, and that was certainly the idea behind the Access ERIC idea as well, to make more people, potential users, aware of this.

But we will certainly think about your additional idea, which is the location of the full set of microfiche.

Mr. WILLIAMS. Well, finally, Mr. Chairman, with regard to the funding for this, it does seem to me that the funding ought to be in place or at least nearly in place before any of this gets very far down the road.

There is, as you know, Chester, a large constituency out there that is, for whatever reason, not satisfied that the system is properly funded now. And to take on new, albeit I think good chores, without proper funding might spread the system a little thin.

By the way, the seven percent increase that I understand was asked for the system is, I guess, not insignificant, given the Administration's lack of aggressiveness in asking for increases in funding for many other education efforts. But it seems to me that the seven percent increase ought not be taken relative to the Administration's unwillingness, in my judgment, to properly fund other education components within the Department of Education, but rather should be taken relative to increases in funding throughout the Federal budget.

I recognize, because I also sit on the Budget Committee, I recognize the problem that some of you within the Administration—this one or the Carter Administration or any others—have in trying to be sure that your piece of the restricted pie is big enough.

Well, let me say that I think that people in this Administration who work within the educational pursuits are not nearly as aggressive as they ought to be in requesting additional funds for, for example, the kind of changes that you want.

The Pentagon will spend the seven percent that is being asked for ERIC in 30 seconds. That is how long it takes them to spend that amount of money—30 seconds. While you have been with us today, Chester, the Pentagon has spent 400 times as much money as it costs to operate this program—just while you have been sitting in that chair.

So it seems to me that in a matter of this importance, particularly to areas where I come from, we really ought to get about properly funding it, and our job up here is made a lot easier if we have an Administration that encourages aggressively the appropriate funding of these things.

Thank you, Mr. Chairman.

Mr. OWENS. Thank you, Mr. Williams.

Mr. Secretary, I want to thank you. As I said before, we have many other questions that we would like to ask, and we will submit in writing a number of questions that we would like to receive replies to. We will hold the record open for about two weeks for receipt of those replies.

I would just in closing like to reinforce the last statement made by Congressman Williams. That is that the real problem is the cultural lag which exists within the decision-making apparatus of this Administration, and previous Administrations, about information and the power of information and the need for more information.

When you made the statement earlier that the central responsibility of the Department of Education—the central responsibility—is the provision of information, you were on target. But there is nothing in your budget that reflects that in terms of the expenditures by the department. I hope that you will use your influence to change that and join with us to more aggressively try to wake up the whole Nation to the fact that the cultural lag that we have with respect to information and information literacy is costing us dearly.

In the area of education tremendous demographic changes are going to place challenges before the whole educational apparatus of the country that it never had to experience before. Every new experiment that succeeds, every approach that is useful is going to be needed, and the more rapidly that approach can be assimilated into practice through the use of research and resource-gathering, the more effective we will be able to be in meeting these challenges.

So I hope that you will use your influence to try to get that cultural gap cut down drastically. Thank you very much for your testimony.

Mr. FINN. Congressman, we appreciate the opportunity to be here this morning. We will certainly respond to the questions you are going to submit. I think the cultural lag that you talk about is not lagging as much as it possibly once did. I think that the fiscal year 1989 budget is in the process of coming, the Administration's request. We will take your advice, and we are glad to have the chance to talk with you about ERIC, and we look forward to the

chance to talk with you about some of our other programs at your convenience.

Thank you for having us.

Mr. OWENS. Thank you very much.

The second panel, which has been waiting for some time: Ms. Lynn Barnett, Chair of the ERIC Technical Steering Committee; Mr. Donald P. Ely, Chair of the Council of ERIC Directors; Mr. Don Erickson, the Director of the ERIC Clearinghouse on Handicapped and Gifted Children.

Your written testimony is available to us and will be entered in its entirety in the record. Please feel free to make any additional comments or summarize as you see fit. We will be from this point on under a five-minute rule, and you will each be limited to five minutes. After the entire panel has completed its statements, we will have questions.

Ms. Barnett, will you please begin?

STATEMENT OF LYNN BARNETT, CHAIR, ERIC TECHNICAL STEERING COMMITTEE

Ms. BARNETT. Good morning. I am Lynn Barnett. I am the assistant director of the ERIC clearinghouse on higher education at George Washington University, and I am chair of the ERIC technical steering committee. I have worked in information science fields for 20 years and have been with ERIC for nearly 11 now. During my time with ERIC I have been involved in nearly every function that a clearinghouse is involved in. I am the past coordinator of the vocabulary improvement project of ERIC when we revised the entire Thesaurus, and the past chair of the ERIC vocabulary group.

I am here today representing the ERIC technical steering committee, which is a liaison group between the clearinghouse and central ERIC at OERI.

I would like to give you an idea of the effect of level funding on the day-to-day operations of the ERIC system. I am going to focus on three major areas: personnel, training, and technology.

The steering committee knows very well the strengths and the weaknesses of the system, and we have seen firsthand the operational effects of level funding. We know that we're not reaching enough people or covering enough of the literature. We also know that it takes trained, professional people to do so. So let me focus on personnel first.

First of all, to put it in perspective, you may not be aware that an average ERIC clearinghouse staff consists of about five people, maybe five and a half. Ten years of level funding has frankly been devastating. We have had a serious brain drain from the system as experienced people have left. We have lost key staff. Every clearinghouse in the ERIC facility is shorthanded, and there is no backup for key jobs. We have had high turnover, and the loss of institutional memory is really quite phenomenal.

The budget restrictions that we have been facing for the last several years have made it nearly impossible to replace trained staff, experienced staff. We are regularly now trading experience for inexperience when we replace people. Many experienced technical people in the system are feeling if not burnout, then at least frus-

tration and feel that they are carrying out general maintenance functions only and that there is little or no time for the fun part of ERIC, which is reaching out to new audiences with new products and new services.

Let me give you three specific examples of funding effects on personnel. First, there is no staff funded to edit CIJE, current index to journals in education. There is insufficient funding to cover the journal literature for CIJE, the published articles. For 17 years the system has proposed announcing published books into the database, and the funding has not come through for that.

The point is that articles and reports published or unpublished do not just jump into the database. It takes trained professional people to index and annotate or abstract.

We are also suffering from a limited question-answering capability because again it takes staff time to answer a question. People don't call a clearinghouse with simple questions, usually, and often a single phone query can result in an hour to three hours' staff time and follow-up and sometimes evolves into a day or two-day long project.

As for the new initiatives, Access ERIR and ERIC partners, it is clear that these could help us serve more people. But the impact on the clearinghouses and the facility have to be carefully considered. With inadequate funding, we guarantee alienation of unsatisfied users who have been promised more than can be delivered.

Related to personnel is the training issue, which is my second point. And I cannot say enough about the need for competent professional personnel. Brain power is what is required to run this system. The tasks associated with database building, user services, and product development require competent trained people. You can't just walk over to Lafayette Park and hire people and pronounce them abstracters or ERIC partner coordinators, or even someone to answer the Access ERIC 800 telephone number. It takes training, minimally six months, and more likely a year, for someone to get up to speed. Routinely, our training across the system has been hampered by travel limitations for professional meetings, for lack of funding for staff planning workshops, and for minimal opportunities for staff development seminars.

In the past couple of years some steering committee recommendations have been either deferred or turned down due to budget restrictions that have had implications for training. One was a recommendation for an internal training team made up of clearinghouse and facility representatives, attendance at regional and national technical meetings, and ERIC support for private sector development of ERIC training tools such as a microcomputer tutorial on how to use ERIC that is now being developed at San Francisco State University.

In addition to the routine training issues, we anticipate a real need on the part of Access ERIC and the ERIC partners in the adjunct clearinghouses in particular for technical assistance from the clearinghouses and the facility.

In the technology area, funding problems relate to equipment and online searching costs. Sometimes the clearinghouses embarrassingly do not have the equipment that our own user community

already has in operation. A case in point is the CD-ROM technology.

Mr. OWENS. Is this the closing statement?

Ms. BARNETT. Yes. The database is now on compact disks, which are required to be run on compact disk players and computers, but we don't have the equipment to play the disks that were given by the vendors.

A related issue is the cost of online searching because we have to pay to search our own database and those costs are becoming prohibitive within clearinghouse budgets.

In conclusion, I would just like to leave you with two points. It is the continual evolution of ERIC, the changes in ERIC that challenge and motivate those of us who have been with the system a long time. We are not opposed to new ideas. We want widened content coverage. We want wider dissemination. We want increased visibility. But we need the resources to help us carry them out. I would ask that you could help us build a better database that would reach more people by providing the resources, particularly the personnel needed to do the job. Thank you.

[The prepared statement of Lynn Barnett follows:]

Oversight Hearing
on the
Educational Resources Information Center (ERIC) System

Committee on Education and Labor
Subcommittee on Select Education
U.S. House of Representatives

July 30, 1987
Washington, D.C.

Prepared Statement

ERIC Technical Steering Committee

My name is Lynn Barnett, Assistant Director of the ERIC Clearinghouse on Higher Education at The George Washington University. I have worked for ERIC for nearly 11 years, and have served for the past 2 years as Chair of the ERIC Technical Steering Committee. I have served as Chair of the ERIC Vocabulary Review Group and currently am an ex officio member of the Council of ERIC Directors. As Dr. Ely indicated in his statement, I am here representing the ERIC Technical Steering Committee.

The intent of this statement is to provide an overview of the effect of level or reduced funding on the technical, day-to-day operation of the ERIC system, as perceived by the ERIC Technical Steering Committee. Focus will be on three major areas: personnel, training, and technology. Most aspects of ERIC's mission--to provide sufficient relevant education information to people needing it--can be tied to these three areas.

The ERIC Technical Steering Committee serves as liaison between the Office of Educational Research and Improvement (OERI) and the ERIC components involved in day-to-day operations of the system. Members are appointed for three-year terms by Central ERIC at OERI and consist of three

geographically distributed Clearinghouse representatives, a representative of the ERIC Processing and Reference Facility, and a chair. The Steering Committee has regular contact with staff of all ERIC components, funneling suggestions and recommendations to Central ERIC.

As a liaison group, the Steering Committee is well aware of both the strengths and weaknesses of the ERIC system. Over the past several years, the Steering Committee has seen at close hand the operational effects of level funding. We know that we are not reaching enough people or covering all of the education-related literature. We also know that it takes trained personnel to correct the weaknesses. The Steering Committee has spent much effort over the years examining how to streamline procedures and produce the highest quality, most efficient database and network possible, but it has been difficult to watch exciting ideas fall by the wayside for lack of resources or personnel to carry them out. New initiatives are stimulating on paper or in advisory board meetings; trying to implement them with too few bodies is both frustrating and ineffective.

Many of the issues brought to the attention of the Steering Committee have to do with ERIC system procedures and guidelines that relate to personnel, training, and technology. Since dedicated and qualified personnel are the heart of ERIC, budget impacts on personnel will be addressed first.

PERSONNEL

Expertise. Ten years of level funding have had a devastating impact on ERIC technical personnel. These are the people who keep the system

running week after week, database update after update. They include staff responsible for document acquisitions, abstracting and indexing, question answering, computer searches, workshop and other presentations, thesaurus development, processing manual refinement, user service product development (e.g., ERIC Digests, special bibliographies, newsletters), and specialized clerical support.

ERIC personnel have left in a steady stream in the past several years for positions in academe, government, the private sector, and even the nonprofit sector. Key staff have been lost by every Clearinghouse and the ERIC Facility. There has been a steady brain drain as personnel levels have been reduced through attrition or budgetary induced layoffs. Every Clearinghouse and the Facility are now short-handed, with little or no backup for key jobs. Turnover has been especially high in the last four years, with at least two longstanding Clearinghouses having completely new staffs. The resulting loss of institutional memory is phenomenal systemwide.

Experienced ERIC professionals have left the system for higher salaries in the information industry or because of burnout or morale problems related to inadequate staff support. In several cases, they have not been replaced at all due to continuing budget limitations. Some full-time positions have been reduced to part-time positions for budget reasons. When a full-time slot remains open, budget restrictions make it nearly impossible to replace an experienced technical staffer with a person with like experience, primarily because a pay cut would be involved in the ERIC position. For example, the salary offered by one Clearinghouse who was

recently recruiting for a new user services staffer was literally laughed at by three different knowledgeable personnel. These three people from the public schools and the information science corporate sector did not even spread the word about the job availability because of the salary level; they knew they would find no takers. The Clearinghouse eventually hired a person who showed great promise but had no comparable experience, and began the long process of training. In other cases, a Clearinghouse has made a deliberate decision to replace experience with inexperience simply because it needed the few thousand dollars saved by hiring a new recruit at a lower salary.

Many experienced technical staffers feel they are simply carrying out general maintenance functions, and they have little time for the "fun" part or ERIC--reaching out to new audiences with new products and services. Most middle managers (the assistant and associate directors of the Clearinghouses) worry about morale problems.

Budget cuts mean personnel cuts, and that means reduction of functional areas. For example, if one user services person is cut in a Clearinghouse, the user services function of that Clearinghouse is gone; if one lexicographic staff person is cut at the Facility, thesaurus development for the system is eliminated. Budget reductions clearly would mean cutting whole bodies, not just an arm here or there.

Ongoing concerns. The following are examples of recent or current personnel-related issues brought to the attention of the Steering Committee that affect ERIC systemwide.

1. Quality control of the entire database: there is no funding to edit Current Index to Journals in Education (CIJE) in the way that Resources in Education (RIE) is edited at the Facility. It is highly desirable for CIJE to be edited in concert with RIE in order to maintain the quality and uniformity of both parts of the database, particularly in the areas of descriptor and identifier accuracy. This is a staffing issue.

2. Education journal coverage for CIJE: limited funding has restricted the number of journals indexed in ERIC. Most Clearinghouses have a number of journals they feel they should be covering but cannot due to staffing limitations.

3. Question-answering capability: very few inquiries have quick answers. It is not unusual for a single phone query to require 1-3 hours of staff time to answer adequately. Often such inquiries evolve into day-long projects. The problem arises in determining who to turn away.

New initiatives. Experienced ERIC technical staff are excited about the proposed new initiatives because of their potential to solve ERIC's traditional weaknesses. However, they are greeted with reservation. The technical personnel see the ramifications of insufficiently funded new initiatives, because they are the staff who have managed, by sheer will power and long hours, to keep the system afloat during years of insufficently funded old initiatives.

ACCESS ERIC and ERIC Partners could address ERIC's need to serve more people. The impact of ACCESS ERIC on the Clearinghouses and Facility must be carefully considered, however. Inadequate funding of ACCESS ERIC, the

Clearinghouses, and the Facility will result in an ineffective system and serious alienation of unsatisfied users who have been promised more than can be delivered. The Facility and Clearinghouses will be required to answer more phones, respond to more letters, do more computer searches, conduct more workshops, print more subject specific products, etc. All of this is fine with adequate resources; without, it is a disaster. Already, Clearinghouses are reluctant to propose special projects because they do not have the staff to carry them out. The bottom line is that when an organization is already at the bare bones level, more work requires more staff.

TRAINING

Adequate training of technical personnel is crucial to the effiency of a system like ERIC, since the tasks associated with database building, user services, and product development are highly labor-intensive. ERIC is a highly interactive system, both among its separate components and with the outside education community at large. Staff must be familiar with their own subject scope areas covered by that community, as well as their own system guidelines detailed in the 788-page technical ERIC Processing Manual. Inadequate funding of training has ramifications for both old and new initiatives.

Ongoing concerns. Two types of training issues have surfaced regularly at national ERIC technical meetings as priority topics: training ERIC users and training ERIC staff. Both types have been severely hampered by budget limitations over the past several years.

ERIC technical staff would like to reach sophisticated, naive, and potential users, but computer searching workshops are few and far between due to staff and travel limitations. Obviously, user satisfaction would be enhanced by better contact with the user community, including practitioners, policymakers, parents, and the press, as well as the traditional librarians and researchers. In an era of home computers, everyone has access to ERIC, and could be taught to use it.

Internally, ERIC technical staff have suffered from limitations on training opportunities. The Clearinghouse staff need two types of expertise: library/information science and their Clearinghouse's subject scope area. Attendance at professional meetings is crucial to staying abreast of both fields, yet there have been very few funds available to get to those meetings. Often when a Clearinghouse staffer does attend a scope-specific conference, his or her time is spent not in the sessions but in the exhibit hall with the ERIC booth. In other cases, the ERIC booth doesn't even get there because the exhibit hall fee is prohibitive. Clearinghouses have become more and more selective about which meetings they get to and have become very creative in bartering services with other organizations in order to attend as many as possible. Clearly, the more places that ERIC can show its wares, the more user contact and staff development there can be.

Steering Committee issues. Over the past few years the Steering Committee has proposed several internal training-related recommendations that have been deferred or turned down due to budget restrictions. They

include the following:

1. Establish an internal training team made up of Clearinghouse and Facility representatives to help new staff, provide staff development and updates, or work on special systemwide projects. New staff would benefit from experienced peer instruction; experienced staff selected as trainers would benefit from the professional development and leadership opportunities. The system would benefit from higher productivity.

2. Fund annual regional technical meetings and a national technical meetings for selected representatives of all ERIC components. These meetings are an excellent mechanism for personal communication, idea sharing, and cooperative planning.

3. Fund the Facility and Central ERIC to have a representative at all regional technical meetings. The intraorganizational communication provided would improve productivity, quality, and morale.

4. Have a mechanism and funding to evaluate and/or assist private sector development of ERIC training tools, such as a microcomputer tutorial on how to use ERIC that is being developed at San Francisco State University.

New initiatives. There is no question that Clearinghouse and Facility personnel will be required to provide training or technical assistance to ACCESS ERIC, ERIC Partners, and the Adjunct Clearinghouses. In a network like ERIC where all parties interact daily, each new component of the organization must know the rules and know them quickly. It is difficult to determine exactly what will be required since the ERIC Partners and Adjunct

Clearinghouse ideas have not been fully defined, but it is clear that Clearinghouse and Facility staff time and expertise will be called on, and rightly so, by personnel running the new initiatives. For example, ERIC guidelines for document selection, cataloging/abstracting/indexing, and vocabulary development will have to be learned by Adjunct Clearinghouse staff. The question is when, how, and who will provide this training if the Clearinghouses and Facility do not have sufficient resources?

TECHNOLOGY

Equipment. Budgetary effects on technology have hit most squarely at the Clearinghouse level. Although the Clearinghouses are aware of and enthusiastic about using every new advance, they are slow to be funded to do so. Since Clearinghouses are prohibited from purchasing equipment with contract funds, they either take what their host organizations provide or wait and hope for sufficient Department of Education funding to lease other equipment. Although there has been a lack of uniformity across the system, all the Clearinghouses can transmit data to the Facility and can communicate with each other and Central ERIC via electronic mail. However, sometimes the Clearinghouses do not have equipment that the ERIC user community already has in operation. A case in point is the CD-ROM (compact disc-read only memory) technology.

CD-ROM. The ERIC database is now available from three commercial vendors on CD-ROM. The discs virtually duplicate the ERIC computer file; they do not contain the full-text of documents, just abstracts as in the online database and print indexes. Sold on a subscription basis and

updated quarterly by the vendors, the discs run on a CD player connected to a computer. Ironically, most of the Clearinghouses do not now have the additional equipment needed to use the discs given to them by two of the vendors. This is a high priority with positive implications for both user services and in-house database searching.

Online searching. A related issue is the cost associated with online database searching and the effects of limited funding. Online searching is an integral part of effective user services and also, to a lesser degree, of database management in terms of vocabulary development, acquisitions, and even abstracting/indexing. The cost of going online results in staff reluctance to do so for other than fee-paying customers, especially when a request is for additional information from a related database like Dissertation Abstracts.

An unsolicited proposal has been submitted to OERI by one of the commercial online vendors that could solve this problem. Among other things, it would provide all the Clearinghouses and the Facility with unlimited searching of the ERIC database at a substantially reduced rate to be paid by OERI on behalf of the system. This proposal was greeted with unanimous enthusiasm by staff attending the May 1987 national technical meeting, but its status is unknown at this time. Whatever the outcome, there is general agreement among the technical staff that optimal use of online searching would result in increased efficiency in a variety of Clearinghouse areas.

CONCLUSION

ERIC is not only not resistant to change, it has a history of change. It is this continual evolution that challenges and motivates many ERIC oldtimers. In response to user requests, document cataloging has changed to relect publication types and target audiences, and types of documents collected for the database have broaded to include more and more practitioner-related material (now approximately 30% of the database). Publications and other products have been developed for specific audiences; e.g., 430 ERIC Digests in less than 4 years. New initiatives have been the name of the game.

In the technology area, document processing has gone from punched paper tape input to optical character recognition (OCR) technology, to instantaneous electronic data transmission. Videocomposition techniques are now being used to produce RIE, and the microfiche is being produced with state-of-the art technology. Parts of the database have been downloaded on floppy discs (MicroSearch) and a full-text database has been developed (ERIC Digests Online). The efficiency and vision of ERIC's technology on a shoestring budget has been remarkable.

In the future ERIC personnel are looking forward to such things as inclusion of additional material in the database (including non-print items), better links with other databases, more online access points in nontraditional locations, new audiences, and full-text document delivery via optical media.

ERIC TECHNICAL STEERING COMMITTEE DEFINITION
6/12/87

The ERIC Technical Steering Committee serves as a conduit between the network's technical processing staff and Central ERIC for the purpose of promoting system improvement and enhancing system operations. Suggestions for system improvements or modifications in ERIC technical procedures may originate in the ERIC Clearinghouses or other system components, with members of the Steering Committee, or as a result of national/regional technical meetings or other system meetings.

In coordination with CERIC, the Steering Committee is responsible for:

(1) planning and implementing the agenda for the national technical meeting;
(2) providing planning assistance for regional technical meetings;
(3) considering all recommendations resulting from national/regional technical meetings or recommendations received from Clearinghouses at any time;
(4) making recommendations for action to CERIC;
(5) carrying out projects on behalf of the ERIC network as approved by CERIC.

Membership on the Steering Committee is comprised of five people, including representatives from three ERIC Clearinghouses (one from the east, midwest, and west coast), one ERIC Facility representative, and a chairperson chosen by CERIC. A balance between processing and user services skills is desirable. Each member serves a three-year term. Terms are staggered in order to permit annual rotation. Members of the Committee recommend new representatives to CERIC; new members are selected by CERIC.

Clearinghouse representatives serve for three years. When a new member is appointed to fill out an unexpired term, the following shall apply: (a) If there is one year left in the unexpired term, the replacement serves out that year and serves his/her own three-year term in addition (a total of four years). (b) If there are two years left in the unexpired term, the replacement serves out those two years and then cycles off the committee.

The ERIC Facility determines how long its representative serves.

The Steering Committee Chair is appointed for three years. If the term is not completed, the replacement does not "fill out" the rest of the predecessor's term but rather is appointed for a new three-year term.

Prepared by Lynn Barnett, Chair
Based on 3/1/84 statement as modified 5/31/84

Mr. OWENS. Thank you.

Mr. Ely, I think I might have mispronounced your name. But, please proceed.

STATEMENT OF DONALD P. ELY, DIRECTOR, ERIC CLEARINGHOUSE ON INFORMATION RESOURCES, SYRACUSE UNIVERSITY

Mr. ELY. That's right. Thank you very much, Mr. Chairman. We are glad to be here. I am Donald Ely. I am director of the ERIC clearinghouse on information resources, and I am representing the council of ERIC directors, of which I am chair. I am also a professor at Syracuse University. None of the other directors are full-time; we are all part-time.

Two quick stories. I saw a college president last week. He said two of the best things the Federal Government has ever done in education was the passage of the Morrow Act, which established the land-grant colleges in the United States, and the creation of ERIC. That may have been overstated. I was glad to hear it. But that was the opinion of one college president.

In my testimony, which I will not read, I refer to an experience last January south of Jakarta, Indonesia, going into a small library that is part of their Ministry of Education and noting four boxes in the corner. I asked the librarian what the four boxes were, and she said, "Oh, those are ERIC microfiche." I said, "Why aren't they being used?" She had a microfiche reader and printer, and she said, "Well, I don't know how to use them."

I sat down with her and in about half an hour she felt she understood the system. When I returned the next day, I discovered the size of that library had been doubled with the addition of those four boxes of ERIC microfiche. Imagine, doubling a library in one day by putting those into service.

ERIC is a unique combination of universities, public school associations, professional associations, the Government, and private enterprise. That is how we can generate a figure like $30 million or $130 million or someplace in between. The fact that for less than $6 million the Federal Government is able to leverage more than $30 million at least, and probably more than that, is a pretty good investment. in fact, I can't think of any other part of the Federal Government that does that, and certainly it ought to be encouraged.

Rather than refer to my printed testimony, I would like to respond to some of the answers and statements made by the assistant secretary, not in a sense to be contentious, but rather to clarify and expand some of them.

In regard to the restriction about published items, when ERIC was first established, it was established to try to bring in the report literature that was being funded by the Federal Government. No one was controlling that report literature, and ERIC was established in response to a request of a House committee that the research that was being done and funded by the Federal Government find a way to be housed and retrieved so that the funds wouldn't be expended over and over again for the same kinds of research. Nothing existed then. ERIC is the only thing that does it now. Those items are refereed, and the quality control came from the referee-

ing of the research that was originally funded. So we were providing a service.

There are three kinds of literature that you know: the report literature, the published literature, and then the journal literature. ERIC covers two of the three. We cover the journal literature, and we cover the report literature. The fact that we don't cover the book literature even though we have requested since 1977 to do so is the fact that it already exists and we are able to do that. I think we have been turned down on our funding request because it does already exist. And certainly the staffs of the clearinghouses who are specialists in this area know enough to go to that literature in responding to questions which are raised of them.

Of the shortcomings, no statistical material. We are ready to put that in the system. We have studied that process. We have some procedures for doing it. We have probably stayed away from it because the national center for educational statistics has been doing it and we did not want to be redundant of their effort. We certainly can handle that literature.

Some people are concerned that we are not able to answer all the questions that come to us, but we do have specialists in the clearinghouse and we do have ERIC partners already. They are called librarians. And as I think you will hear from the testimony of librarians who are here today, the librarian is already an ERIC partner, and our clearinghouse particularly has been working with the professional librarians at all levels—public librarians, school librarians, university librarians—to be our representatives.

When people have questions, they may not get the answer directly from ERIC, but they get a lead to it through a librarian. All we need to do for ERIC partners is to identify our librarians and then extend that network beyond librarians and we've got the network. But I will not accept the fact that it costs zero dollars to do that. It requires people to coordinate such an effort, and it is not a freebie, it does cost.

The typical ERIC user, I submit, is not just a graduate education student researcher. I am sure that is a substantial part. I know it is. But if we check the testimony of others today, librarians, people who work with individuals, we will see that that figure has been changed, and most of the users, about 40 percent of them, are practitioner users.

The document citations, the cost of document citations was said to be $70. We don't dispute that figure, but that is the cost of two books in an average academic library, two books to process one ERIC document.

There are some other points that we would like to raise. I hear the bell. Let me just say that an invasion of an already starved budget by Access ERIC, adjunct clearinghouses, and ERIC partners, is the greatest threat that we face. Our greatest fear is that $650,000 will we taken from the still-level budget to do something which we want to do as well but we can't do it with our current staff and try to achieve all the things that we would like to achieve together.

Thank you for the opportunity for making this statement.

[The prepared statement of Donald P. Ely follows:]

Testimony

Education and Labor Subcommittee on Select Education

July 30, 1987

Educational Resources Information Center (ERIC) System

I am Donald P. Ely, Professor of Education and Director of the ERIC Clearinghouse on Information Resources at Syracuse University. My colleagues are Lynn Barnett, Assistant Director of the ERIC Clearinghouse on Higher Education, and Donald K. Erickson, Director of the ERIC Clearinghouse on Handicapped and Gifted Children. I am here representing the Council of ERIC Directors (COED), a systemwide coordinating group; Ms. Barnett is Chair of the ERIC Steering Committee for Technical Operations; and Dr. Erickson has been active in the ERIC redesign process as a member of the ERIC Redesign Study Panel.

We have chosen to present joint testimony for the sake of efficiency and to reduce the amount of redundancy. We will augment this formal statement with brief oral comments that elaborate upon several issues raised in the paper. We invite your questions or comments during our allotted time and afterward.

The purpose of our testimony is (1) to establish the value of the Educational Resources Information Center (ERIC) to the education profession and to others who need information in the broad field of Education; (2) to express the position of the Council of ERIC Directors regarding recent proposals for changes in the system; and (3) to voice our concerns about funding levels and future allocations of funds.

ERIC: An Information System for All Educators

Recently I was in a small library south of Jakarta, Indonesia. It is used by the staff of the Center for Communication Technology of the Indonesian Ministry of Education and Culture. As I was surveying the shelves to determine the scope, quality and recency of the collection, I noticed four unopened boxes in the corner. They appeared to be boxes of ERIC microfiche and, upon closer inspection, I discovered that they were. I asked the librarian why they were not being used since the library had a microf he reader, and she replied that she did not know how to use the collection. I spent about half an hour helping her to understand the procedures. That afternoon we doubled the size of the library. This instance is just one small illustration of the potential impact of this 20 year old system.

Closer to home, commercial organizations that provide access to more than 300 databases list ERIC as one of the five most frequently used with more than 50,000 hours of search time logged per year. In government, public libraries, and universities, ERIC is the most frequently used database; in industry it is 16th (Williams, 1986). Overall, it is second in use only to MEDLINE, the medical database from the National Library of Medicine.

A 1981 study (Heinmiller) lists 3,269 institutions that offer some kind of access to ERIC. That number has increased significantly since then because every microcomputer with a telephone modem is a potential access point. At that time, the study estimated 2.7 million uses annually, which has probably increased to over 3 million by now. Documents entered into the system and made available on microfiche are available in 891 locations in the United States--all 50 states and 3 territories--and 111 collections are located in 22 foreign countries. ERIC has also been used as a basis for national information systems in education by at least ten countries and two international organizations. It has truly permeated information systems globally.

ERIC is a unique partnership of government, universities, professional associations, and private enterprise. For every dollar the federal government puts into ERIC, $27 is spent by others for further development, distribution, and use of the system. Of the $136 million estimated annual expenditures for the development and use of the system, OERI contributes less than 5%. ERIC is thus a good investment both economically and educationally.

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ERIC is decentralized and specialized, i.e., each clearinghouse is located within a university or professional association with experts from the subject-matter field in residence. This tie between the clearinghouses and users insures adequate coverage of content, substantive reviews of materials entering the system, a natural linkage to users, and continuing feedback on user needs and new directions in the field. A recent article summarizes ERIC's position among professional library and information science professionals:

> The Education Resources Information Center database (ERIC) is sometimes referred to as one of the "mother files." This phrase can be taken several ways. One interpretation is that ERIC is all-embracing, one of the major files covering a broad range of knowledge. The ERIC database indexes over 600,000 documents; its scope includes the social and behavioral sciences, and the helping professions. . . .
>
> The "mother file" concept also recognizes ERIC's status as a progenitor in the online field. It was one of the first generation of major databases to be specifically designed for computer retrieval. . . .
>
> Like mothers everywhere, ERIC is in danger of being taken for granted. It has "always" been there, it is very accessible, and it does not have the glamour of the $100 per hour databases. Individuals outside the field of education may overlook ERIC for the opposite reason: its vastness is intimidating, making the task of shifting through thousands of citations to locate a few relevant references seem monumental. (Seiser, 1987)

ERIC has been conscious of its users over the years. The change from Research to Resources in the name of the system is indicative of the broadening of the scope to include more types of educational information. A special emphasis about three years ago targeted practitioners as an important clientele and special efforts are now made to locate, select, and disseminate information that is practitioner-oriented. The study of ERIC users in 1981 (King; Heinmiller) uncovered new information about our users and their needs. More recently, Howe (1986) surveyed 500 standing order customers (subscribers to the monthly microfiche service) and 250 local school personnel to determine the areas in which ERIC might provide assistance. Both surveys indicated strong needs for information related to improving practices, improving curricula, improving instructions, and improving administration. A long list of recommended modifications was developed from the survey. Users now include school practitioners (teachers, administrators, supervisors, and specialists);

state and regional education officials; policymakers at the local, state and national levels; education journalists; and library/information personnel.

The system has not remained static over the years. Its early days are documented in ERIC: The First Fifteen Years (Trester, 1981) and major changes and improvements are still being made. The directors and staff of the various ERIC components have proposed improvements, implemented changes mandated by the central office, and adapted to the changing needs of users. We live with change and are ready to take the next steps as proposed changes are considered. We only ask that we have some voice in the deliberations.

As an example of our attempt to participate in the redesign process, COED developed a four-point plan. This plan outlined specific suggestions for (1) revenue generation; (2) a publications incentive plan; (3) creation of ACCESS ERIC; and (4) expansion and clarification of clearinghouse scopes. The OERI administration accepted the ACCESS ERIC recommendation and has made some movement toward arranging for revenue generating activities. We appreciate this response and trust that such dialogue will continue.

When the position paper, ERIC in Its Third Decade, was issued by the Assistant Secretary's Office, COED responded positively but raised several questions about a major shift of emphasis to dissemination. Later this emphasis was reduced. When the reconfiguration papers were released proposing ACCESS ERIC, adjunct clearinghouses, and ERIC partners, we were generally supportive, but opposed the merger of two clearinghouses and change of seven clearinghouse titles. Reasons for the opposition were clearly focused on the needs of ERIC users. Later the merger plan was dropped and the titles of all clearinghouses remained the same. We were once again pleased that those who proposed the changes were willing to listen to those who have had extensive experience with the system.

Position of COED Regarding Proposals

With this background, let us move to the major specific proposals. As a general principle, we will not support any new initiative that would further reduce clearinghouse budgets. We have suffered enough through more than ten years of level funding reduced substantially by inflation. We are currently on the edge of disaster, and, if further cuts are made, the system could crumble.

ACCESS ERIC. We support ACCESS ERIC and have developed guidelines for this new unit, which would serve an important role as the coordinator of dissemination activities for the system just as the ERIC Facility coordinates the creation and maintenance of the database. The detailed guidelines for the mission, governance, and functions of ACCESS ERIC are appended to this testimony. Let me repeat, COED supports ACCESS ERIC, although not at the expense of existing operations. Some of us feel that there is some wisdom in funding ACCESS ERIC for a planning year when details of its operation and further funding opportunities could be explored.

Adjunct Clearinghouses. The adjunct clearinghouse concept is clearly an attempt to locate new sources of funding to extend ERIC coverage to areas not currently well-covered by the system. COED applauds this effort even though we cannot whole-heartedly endorse the proposal as it currently stands. Adjunct means "something joined or added to another thing but not essentially a part of it." Each component of the ERIC system is an integral part of the whole. That is why it works so well. To open opportunities for other enterprise would weaken the system and contribute to inconsistencies, lack of quality control, and optional participation in many aspects of the system which are currently required of all. It also creates another type of clearinghouse that pays for its participation while others do not. We hope that further exploration of the adjunct clearinghouse concept will be made and that the resources of the ERIC system itself will be used to develop standards, procedures, and policies that would help to make this idea work.

ERIC Partners. The Council of ERIC Directors supports the ERIC Partners Proposal. It offers opportunities to build networks and relationships that promote and extend the system. The current assignment of standing order customers (SOCs) to individual clearinghouses is a good start. Other successful efforts along this line have been curtailed or eliminated because of funding cutbacks. This is a low cost investment that could yield large dividends.

Revenue Generation. There has been a sub rosa proposal that a way be found to increase funding for ERIC through user fees charged by database vendors and others who use the database for profit. Currently there is no return to ERIC for use of its database. The irony is that clearinghouses have to pay to use their own database when doing online searches through database vendors. The problem is that money returned to the government cannot, under

current regulations, be returned to any agency or contractor; it must go to the U.S. Treasury. The Council of ERIC Directors supports further exploration of this legitimate source of revenue for the purpose of system improvement.

In sum, we applaud OERI's efforts to improve ERIC. We have been among the first to support some of those efforts, but we would like to have a voice in the process. We bring a wealth of expertise that can enhance proposed plans. We are pleased that ERIC has received attention that it has never had before, and even more pleased to know that hundreds of letters have been written in support of the system. Money is not the only solution to problems. In this case it happens to be one of the most important needs, but there are other solutions that we would like to consider.

Funding

The graph showing annual ERIC budgets adjusted for inflation offers dramatic evidence of our plight; from $3.057 million in 1967 to $1.715 million in 1987. Level funding, which we have experienced during the past ten years, is really substantially reduced funding in the marketplace.

The reductions have eaten away previously useful dissemination activities such as workshops, staff training, newsletters to standing order customers, exhibits at professional meetings, user service products, and responses to inquiries. In the past four years, we have experienced about 40% staff turnover--larger than at any time in our 20 year history. Most of the people have gone to higher paying positions in the information industry. In several clearinghouses over 80% of the annual budget is attributed to salaries and wages, a figure that has been increasing each year as cost of living adjustments must be made.

The dissemination activities have suffered most because we have attempted to preserve the database. The rate of information growth requires constant monitoring and our users have come to expect current information. Therefore, database building is and has been our first priority.

It was the bleak financial outlook that caused the Council of ERIC Directors to propose the following legislative language for ERIC appropriations:

> For necessary expenses to maintain and expand the nation's Educational Resources Information Center (ERIC) program, a minimum of $10,000,000 will be appropriated annually to underwrite the entire system. The

annual appropriation will support the several existing and proposed system components as follows: (1) approximately 80% shall be designated for the operation of the sixteen (16) ERIC Clearinghouses (set forth in Section 405(g)(1)(C) of the Higher Education Technical Amendments); (2) approximately 10% shall be set aside for the operation of system-wide technical, reference, and production support units; and (3) approximately 10% shall be designated for the establishment and operation of a proposed system-wide dissemination and outreach unit known as ACCESS ERIC and for other proposed system innovations.

We have recently heard that an additional $290,000 has been recommended for ERIC in FY 1988. We want those dollars to go to the operation of the present system. This amount barely covers inflation-based salary adjustments for the more than 200 ERIC staff in the 16 clearinghouses and the ERIC Facility. Our fear is that, in the allocation process, the money will be designated for ACCESS ERIC and adjunct clearinghouses while current components continue to suffer from a shortage of resources. We cannot support the alteration of a system that works well for educators worldwide, no matter how good the new idea, if it cuts into already starved operations.

It is clear that ERIC is grossly underfunded and that it can be maintained only with additional financial support. To consider new elements at a time when current operations are hurting is putting the wrong emphasis on system improvement. New entities, however well-intended, do not solve problems. We need the new entities, but we also need the support that will help make them work. We urge this Subcommittee to recommend an additional $4 million for ERIC to achieve the vision that has been presented for its third decade.

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ACCESS ERIC: A Proposed Systemwide Dissemination and Outreach Unit

MISSION STATEMENT

The purpose of ACCESS ERIC is to enhance and support coordinated systemwide leadership in four areas:

I. Coordinated public relations, marketing, training, and referral for all ERIC audiences (policy makers, administrators, practitioners, press, public)

II. Coordinated support services to the ERIC clearinghouses, such as comprehensive needs sensing and assessment of user satisfaction

III. Coordinated development of systemwide products and services (generic and multiscope) to address identified needs

IV. Coordinated linkages between ERIC and other OERI programs (labs, centers, NDN, LEAD)

GOVERNANCE

ACCESS ERIC will be governed by:

I. An eight-member governing board comprised of:

(4) COED (Council of ERIC Directors) members elected by the full COED body
(1) Director of ACCESS ERIC
(1) Chief of Central ERIC (ex-officio)
(1) Director of OERI lab or center
(1) ERIC consumer representative
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The responsibilities of the ACCESS ERIC Governing Board will include the following:

*assessing ERIC user needs
*seeking input on proposed activities from clearinghouses, support contractors, and OERI
*approving an annual plan of work for ACCESS ERIC
*facilitating the involvement of clearinghouses and support contractors in the implementation of the approved scope of work
*maintaining and updating a 5-year plan to guide long-range planning for ACCESS ERIC

The Governing Board will meet at least four times per year.

II. A National ERIC Advisory Committee, which will provide input on the needs and concerns of ERIC users. This committee will include, but not necessarily be restricted to, representative from the following groups:

*ERIC Standing Order Customers
*Other libraries and information centers
*ERIC Clearinghouse Advisory Boards
*Education-related associations
*Other ERIC users

FUNCTIONS

We have identified five types of functions that we feel should be undertaken by ACCESS ERIC, and that we hope will be included in the forthcoming RFP. For each of the areas identified, we have indicated specific functions to be carried out. We have also identified three functions that we feel would be inappropriate for ACCESS ERIC.

I. Outreach and Visibility
- *marketing
- *advertising
- *public relations/publicity
- *promotion
- *press office activities
  - -press releases
  - -systemwide newsletter for users
- *ERIC customer training
  - -seminars
  - -materials development
  - -speakers bureau

II. Referral
- *toll-free phone number
- *referral center for all ERIC products and services
  - -multiple-product order forms (e.g. EDRS, RIE)
- *directory questionnaires (completion of forms for various information directories)

III. Services
- *educational needs sensing
- *assessing user satisfaction
- *professional development and training for ERIC staff
- *liaison with Standing Order Customers
- *liaison with labs and centers
- *ERIC partners (feasibility of working with)

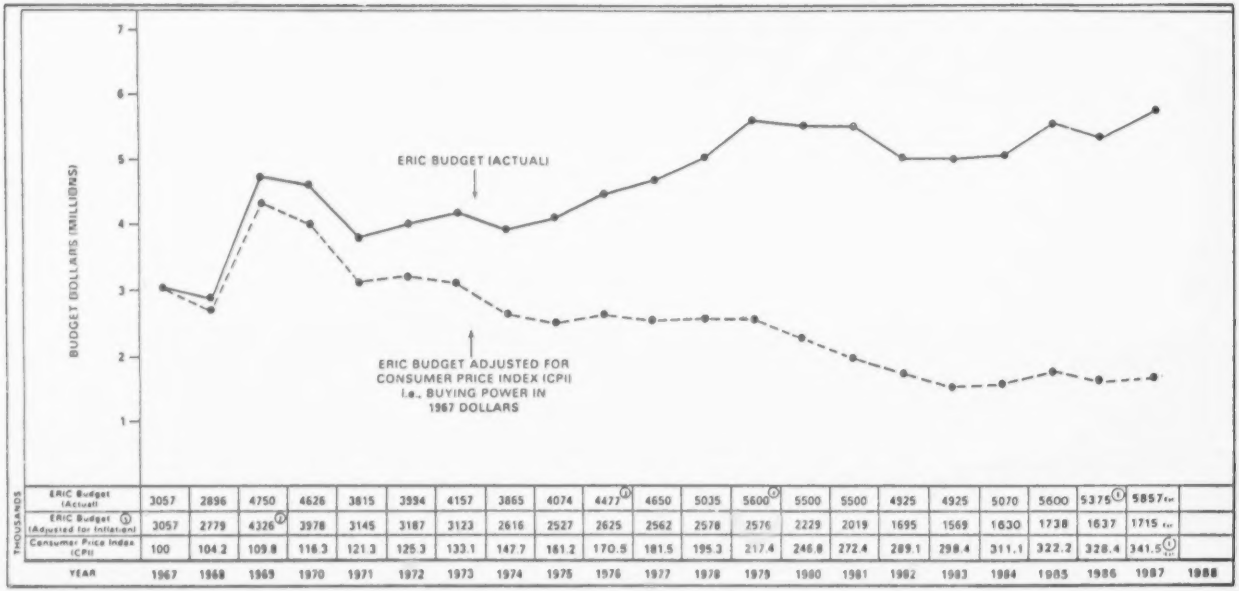
IV. Products
- *generic system brochures and materials
- *multiscope IAPs
- *systemwide newsletter (see fifth bullet under Outreach and Visibility)

V. Revenue Generation
- *seeking authorization for system-generated revenue to be returned to the system to be used specifically for ERIC activities
- *royalties
  - -online searching, CD-ROM, EDRS, CIJE
- *product sales
- *grants
- *training seminars

Inappropriate Functional Areas for ACCESS ERIC

- *computer searching for users
- *evaluation of clearinghouse activities
- *approval of clearinghouse publications

ERIC BUDGETS (ANNUAL)
ADJUSTED FOR CONSUMER PRICE INDEX (CPI) INFLATION



	YEAR	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
ERIC Budget (Actual)		3057	2896	4750	4626	3815	3994	4157	3865	4074	4477 (1)	4650	5035	5600 (2)	5500	5500	4925	4925	5070	5600	5375 (1)	5857 est.	
ERIC Budget (3) (Adjusted for Inflation)		3057	2779	4326 (2)	3978	3145	3187	3123	2616	2527	2625	2562	2578	2576	2229	2019	1695	1569	1630	1738	1637	1715 est.	
Consumer Price Index (CPI)		100	104.2	109.8	116.3	121.3	125.3	133.1	147.7	161.2	170.5	181.5	195.3	217.4	246.8	272.4	289.1	298.4	311.1	322.2	328.4	341.5 (1) est.	

(1) Projection Based on Estimated 4% Inflation

(2) Major New Work Added – CUE Abstract Journal

(3) RIE Volume of Documents Handled 81% Larger than in 1976

(4) "Wedge" Passed at Government Fiscal Year Change Omitted From Year Total

(5) Buying Power in 1967 Dollars

(6) Gramm Rudman Mandated Reduction

Mr. OWENS. Thank you, Mr. Ely.
Mr. Erickson?

STATEMENT OF DON ERICKSON, DIRECTOR, ERIC CLEARINGHOUSE ON HANDICAPPED AND GIFTED CHILDREN

Mr. ERICKSON. Thank you. My name is Don Erickson. I am, I guess, the graybeard here among us at the table, both literally and figuratively. I have been with the ERIC system in one way or another for 20 years and have directed a clearinghouse for 17 years. I have prepared statements as well, which I can tell already that you have digested, so I will not digress to those and repeat those facts. The two areas that I was asked to provide testimony on was the work that was funded by OEIR called the ERIC redesign panel, and somewhat about the ERIC Access Program. You obviously have information about that, and I will be glad to respond to questions.

I would like to pick up where Don left off and comment on a couple of impressions that I think have been left by the earlier testimony, on the basis of my role as a director.

First of all, I think most of the testimony earlier focused on only one of the major functions that we perform in a clearinghouse, and that is to build the database. There are two other major activities that we engage in that are equally as important and that we feel are probably the place where ERIC interacts most with its clientele, and that is in developing user services products and in answering their questions and also in developing information synthesis pieces. Both of those are major additional legs of a three-part operation of clearinghouses which do perform in response to various audiences.

I think that impression that Don touched on a minute ago that we focus primarily on the research community and do not focus on the practitioner has to be clarified. Looking at the acquisitions in the database recently, we notice that those acquisitions that have a tag focused on specific practitioner audiences number about a third of the database now, and that focus has been conscious and it has been deliberate over the last 10 to 15 years.

I would also like to direct your attention to the books that have been brought by the folks from ERIC. I see most of those as being related to practitioners, using computers in teaching foreign languages, civic writing in the classroom, faculty participation in decision making, languages across the curriculum in elementary courses. Those are practitioner-oriented, and that has been our focus to a much greater degree in the past few years than it has on the researcher. Indeed, I sometimes think the researcher feels that we have ignored him, that we have left him or her in the dust. But that is not the case. We have attempted, with the funds we have, to continue to fulfill the mission of ERIC to be addressing the needs of practitioners—that is, teachers, administrators, and those who are involved in bringing instruction to children—as well as to those who are creating new knowledge. So we feel, and with quite some evidence, that we are addressing a practitioner audience.

We think also that we have not been intractable in trying to bring new change to the ERIC system. And we think that some of the change that has taken place—that is, the practitioner focus,

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the development of practitioner products, and the dissemination of those—have really come about through the creation of the creative minds of the ERIC directors. Witness the fact that one of the major pieces that is being submitted now for change and enlargement of the system has come from the ERIC system itself.

We agree with you, Mr. Williams, that much more needs to be done in getting the word out that this resource is available. We think that that ought to be done. But we think that whatever the new systems or new portions of the system promote ought to have the backup of the clearinghouses and what they produce to be able to assure we can deliver when we announce it. Thank you.

[The prepared statement of Donald K. Erickson follows:]

I am Donald K. Erickson, Director of the ERIC Clearinghouse on Handicapped and Gifted Children, a position I have held continuously since 1970. I served as the elected chairperson of the Council of ERIC Directors for four years (1972-76) and have held other positions of leadership in the ERIC system during the past decade. Because of my length of service and commitment to the ERIC system I feel qualified to present this testimony, and I am grateful for this opportunity to appear before the United States House of Representatives Subcommittee on Select Education today.

As part of the ERIC Clearinghouse team selected to provide joint testimony on behalf of the ERIC system, I feel particularly qualified to address two special issues in the content focus of your hearings: one of these issues is the ERIC Redesign Study Panel since I was the sole representative of the ERIC system on the Panel; the second issue is the proposal to establish Access ERIC since I am the author of the concept on which Access ERIC is based.

The ERIC Redesign Panel

On Monday, April 28, 1986, the U.S. Department of Education announced that it was appointing "a 13-member panel to study the redesign and operation of the Educational Resources Information Center (ERIC)" program. The purpose, objectives, and expected outcomes for the panel are spelled out in Attachment A, "ERIC Redesign Study," which was sent to each of the panel members along with other resource material.

It would be a fair assessment to say that ERIC Clearinghouse Directors were less than enthusiastic about the creation of this Panel and the mission it was given to carry out. Several reasons can be cited for this attitude which are important to understand:

- The ERIC system had been studied frequently during its history with the consequence that its strengths and weaknesses were already well documented. Many of its weaknesses had been corrected by the system with little or no input of additional funding. Responses to some of the criticisms leveled against the system could only be made with a significant infusion of new money which never was forthcoming.

- The Redesign Panel was purported to be a "peer review group" and as such was thought to be able to carry out the rather extensive mission set forth for it by OERI. However, many of the members of the Panel were not so much "peers" in the information business as they were current, or former, or potential users of the system.

Although all Panel members were outstanding representatives of their respective professions, only a couple of them could be considered sophisticated information specialists. Consequently, a great deal of time was spent ir acquainting the Panel with the operation of the system leaving precious little time to deal with the larger purpose and objectives outlined for the Panel.

- The stated objectives and anticipated outcomes would have been difficult to accomplish even for a panel of true peers. But our charge as a panel was clearly beyond the capacity of a group that included persons who admittedly had little or no detailed and systematic knowledge of the ERIC system.

- Several of the OERI-stated outcomes for the Panel appeared to be ones for which they were seeking justification, that is justification for decisions they may have already made regarding the system. For example, it was quite clear that OERI was looking for support to reconfigure the structure of ERIC since the Panel was asked to "Think about and develop alternative models for structuring the ERIC Clearinghouse network."

Despite the misgivings noted above, the Council of ERIC Directors (COED) endorsed me as their representative to the ERIC Redesign Panel and instructed me to report back to them on the deliberations of this group. (In addition to my reports, COED also received most of the documents generated by the work of the Redesign Panel including the "Final Summary Reports" of the two meetings that were held.)

My assessment is that the two two-day meetings and considerable independent study on the part of the individual panel members produced the following results:

- a greatly expanded understanding of the mission and operation of ERIC on the part of Panel members;
- a much clearer picture of who currently uses ERIC and who doesn't, and why;
- a demystified assessment of the content of the ERIC databases;
- an understanding of the wide variety of products developed and disseminated by ERIC Clearinghouses;
- a discussion of the technologies employed by the ERIC system in reaching its many audiences and a general consensus that ERIC is a state-of-the-art information system;
- a discussion of the "complexities" of the ERIC system which are seen as impediments to many potential users of the system without consensus on how to simplify the complexities;

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- an examination of means by which Clearinghouses control the quality of the database and other products produced without arriving at any conclusion as to how the processes can be improved;
- an extensive airing of the real and perceived problems associated with ERIC, not the least of which is that ERIC is frequently criticized for NOT doing what it was never designed or funded to do;
- finally, a hard won but sincere admiration on the part of panel members of what ERIC has been able to accomplish in the past 20 years.

The ERIC Redesign Panel, as a group, explored many relevant (and some irrelevant) issues regarding the ERIC system including what it does, how it does it, to whom it does it, and what it should be doing. The Panel was not at all reticent to carry out one of the charges given to us by OERI officials which was "to leave no question unasked" about any aspect of ERIC. Nor was the Panel negligent in identifying problem areas associated with ERIC operations. And to be totally fair, it should also be pointed out that virtually all Panel members became much more enthusiastic and positive advocates for ERIC after having served on the Panel. But the asking of questions, the identification of problems, and even the offering of praise, does not equate with providing solutions. And in the realm of solution-rendering, the Redesign Panel fell disappointingly short of the outcomes that had been suggested for it as outlined in Attachment A. An examination of the final summary reports of the two meetings of the Panel provides a much clearer picture of the overall comp.exity and sophistication of the existing ERIC information system than it does clearcut directions for the future.

The general disappointment of the ERIC Clearinghouses with the work of the ERIC Redesign Committee is accurately portrayed in a paper entitled A Response to the Work of the Committee on ERIC Redesign by Garry R. Walz. (This paper, Attachment B, is entered into the record as part of this testimony. At the time this paper was written, Dr. Walz was the Chair of the Council of ERIC Clearinghouse Directors and was also one of the official OERI-selected reactors to the Redesign Panel reports.)

One section of the Walz paper is particularly relevant to this discussion and portions of that section are reproduced here because of their representativeness of the feelings of all ERIC Clearinghouse Directors. My personal comments are interspersed and identified.

"A Response to the Work of the Panel"

It would appear that the panel had available to it the appropriate documents and resources that it needed to

adequately understand the design and functioning of the ERIC system...it certainly seems that the committee was in a good position to make responses to the charges with which it had been provided.

> Erickson comment: I can attest to the fact that we were given more reading matter than we could possibly digest. As someone already well acquainted with ERIC operational details, even I found the reading assignment formidable.

A difficult and disturbing aspect of the panel reports is the difficulty in determining what is the response of an individual or a subgroup and what were in effect the overall responses of the panel. It would appear that there were no overall conclusions or recommendations reached by the panel. Hence, what we have are a series of subgroup recommendations and conclusions which are not always consistent with one another. In effect, it appears that what we have are the responses of selected individuals from the panel to different aspects of the redesign study and that none of these responses were subjected to overall panel evaluation and response.

> Erickson comment: There is no question about the fact that the Panel had difficulty pulling all of its various insights together. We were struggling with extremely complex issues on which there was not agreement among members. Also, we were not asked by OERI to come up with a final set of recommendations. It was clear that we were an "advisory" Panel and that OERI intended to use various outputs of our deliberations and not just a set of concluding recommendations.

Another confusing element to the responses is a tendency to offer conclusions without an accompanying rationale, discussion or documentation for the stated conclusion (e.g., "...there is sufficient merit for a clearinghouse devoted to high schools"). Two "alternative" designs for the ERIC clearinghouse structures were provided, one by Plank and another offering three different ERIC clearinghouse configurations; but they lacked any meaningful discussion as to why they were proposed as alternatives and what would be the changes in function as a result of the design changes.

> Erickson comment: Many of the comments that emerge from the work of the Panel were indeed the suggestions of individual members who were offering options for consideration. For the most part they were offered without accompanying rationale and, in the case of the complex issue of system

reconfiguration, no consensus among Panel members was reached nor do I think it ever would have.

The panel did not address ERIC, as much as I would have liked, as a comprehensive, interactive, national system involving central ERIC, contractors, clearinghouses, and a large variety of access points. Each of these parts interacts with the other parts, and changes in one part of the system have important implications for the function of all other parts of the system. Changes which are to be made need to be done in a way that is cognizant of the system as a whole and take into account the effect of the change in one element upon all other elements in the system.

Erickson comment: Panel members came to the strong conclusion that ERIC is a complex system and that it was impossible, as a group, to deal with all of these complexities in a constructive manner. Lack of time and a lack of in-depth understanding of some of the issues were impediments to the Panel's ability to deal with how various changes would impact on the major functions of the system of the future.

In conclusion, I believe that the panel has produced several reports with useful insights and information. However, they do not constitute a redesign of the ERIC system, but rather offer a series of independent observations and recommendations with varying degrees of panel member support and agreement. These independent conclusions and recommendations each need to be viewed against the impact and probable consequences they would have upon the function of the total ERIC system.

Erickson comment: Dr. Walz accurately characterized the sum and substance of the Redesign Panel's work as a series of reports with useful insights and information. He is also correct in stating that the Panel's work does not constitute a redesign of the ERIC system. Thus one cannot discern a direct path from the work of the ERIC Redesign Panel to all of OERI's recommendations for ERIC redesign contained in the document "ERIC In Its Third Decade."

Several ERIC Redesign Panel members and other individuals both external to and within OERI were engaged by OERI to independently develop papers on specific aspects of the ERIC system based on various deliberations by the Panel. Papers were prepared on "Current and Future Technological Requirements of the System" and

"Content and Quality Control in ERIC: Summary Report." Although not widely circulated, the contents of these special papers, along with other deliberations of the Panel, made their way into the OERI-produced document "ERIC In Its Third Decade" which was viewed as OERI's preliminary effort at presenting an ERIC redesign proposal. And although this paper offers some very creative ideas, it does not offer the definitive rationale we had hoped would emerge from two years of intensive examination of the ERIC system.

The deliberations of the Redesign Panel did, however, stimulate considerable self-analysis on the part of the Council of ERIC Directors, motivating them to develop a set of "Guiding Principles for ERIC Design." (See Attachment C) This document is a particularly thoughtful and yet succinct statement on the part of the ERIC system which is indicative, I think, of COED's willingness to entertain change based upon the collective wisdom of those who have participated in the development and evolution of this system.

The COED "Four-Point Plan for ERIC Redesign" (See Attachment D) is another document, produced by the ERIC Directors, which is also highly responsive to the Redesign Panel and directly responsive to OERI's goals of:

- increased access to the existing system
- focus on reaching heretofore neglected audiences
- cost-effectiveness
- revenue generation

Access ERIC, which is Point #3 of COED s "Four-Point Plan for ERIC Redesign," will serve as the focus of my concluding remarks.

Access ERIC

For approximately ten years I have presented and argued for the idea that the ERIC system needed some kind of a central coordinating unit to conduct certain activities that the Clearinghouses could not effectively carry out themselves and which, for a number of reasons, cannot be done by OERI. For most of these years my arguments fell on deaf ears since apparently neither the system nor its supporting bureaucracy could quite integrate this idea into existing system components.

The deliberations of the ERIC Redesign Panel, however, afforded the opportunity to offer this idea as a solution to many of the perceived problems of the current ERIC system. As the panel members struggled with the vexing issues of system awareness, accessibility, quality control, coordination of resources, multiple audiences, product development efficiencies, and many others, it began to dawn on me that the time had come for the idea I had been nursing for a decade.

On the second day of the second meeting of the Panel I presented "A proposed model for 'redesigning' ERIC into a comprehensive educational information resource system using already existing federally supported programs." The model included an entity which, at the time, I called a "Secretariat." (See pages 28-33 of the Final Summary Report of the Second ERIC Redesign Study Panel Meeting.)

It soon became apparent that the idea of this coordinating unit had now struck a respondent chord with some of the OERI officials. Consequently, at the annual meeting of the ERIC Directors in September 1986, COED elaborated on the the idea, changed the name from the ERIC Secretariat to Access ERIC, and incorporated it as one of the the four major initiatives in the COED "Four Point Plan for ERIC Redesign." (See Section 3, Attachment D) OERI subsequently commissioned John W. Collins III of Harvard University to produce a special paper titled "ACCESS ERIC - A Concept Paper" (March 1987).

The Collins paper is viewed as a scholarly examination of this concept but one which is overwhelmingly comprehensive and detached from the realities of the ERIC system since it is written without regard for current budget constraints. Consequently, the ERIC Directors, after carefully studying the Collins recommendations, developed the following list of functions they felt should be undertaken by ACCESS ERIC and presented them to OERI.

ACCESS ERIC

A Proposed Systemwide Dissemination and Outreach Unit

We have identified five types of functions that we feel should be undertaken by ACCESS ERIC, and that we hope will be included in the forthcoming RFP. For each of the areas identified, we have indicated specific functions to be carried out. We have also identified two functions that we feel would be inappropriate for ACCESS ERIC.

I. Outreach and Visibility
   *marketing
   *advertising
   *public relations/publicity
   *press office activities
     -press releases
     -systemwide newsletters for users

*"introduction to ERIC" activities
-seminars
-materials development
-speakers bureau

II. Referral
*toll-free telephone number
*referral center for all ERIC products and services
-multiple-product order forms (e.g. EDRS, RIE)
*directory questionnaires (completion of forms for various information directories)

III. Services
*educational needs sensing
*assessing user satisfaction
*professional development and training for ERIC staff
*ERIC partners (feasibility of working with)

IV. Products
*generic system brochures and materials
*multiscope IAPS
*systemwide newsletter

V. Revenue Generation
*royalties (on-line searching, CD-ROM, EDRS, CIJE)
*product sales
*grants
*training seminars

Inappropriate Functional Areas for ACCESS ERIC:
*computer searching for users (should stay with individual clearinghouses)
*evaluation of clearinghouse activities (should stay with OERI)

The COED list of functions for Access ERIC is indicative of considerable thought on the part of the ERIC system. Inherent in the list is a prioritization of functions that suggest a phased approach to the proposed functions. As Access ERIC matures as a system component, it can and should incorporate all of the functions included on the list.

I am delighted that COED, the ERIC Redesign Panel, and OERI have examined, modified, adopted, and are now promoting the Access ERIC idea because I am convinced that it is an idea whose time has come. However, I am deeply concerned about the way in which this idea becomes implemented. There is probably no one in the ERIC system who wants to see Access ERIC become a reality more than I do, but I cannot in good conscience endorse creation of an Access ERIC at the expense of the budget of other system components, because:

1. The success of Access ERIC is dependent, to a large degree, on the cooperation and good will of all ERIC components. If funding for Access ERIC is perceived as coming out of monies which heretofore have been allocated for clearinghouses and the ERIC Processing Facility -- i.e. monies that are already in extremely short supply -- it is virtually guaranteed that cooperation will not be forthcoming.

2. Any reduction in functions of the ERIC Clearinghouses will necessarily render Access ERIC less than effective since, in the final analysis, it is the clearinghouses that provide the substance of what will be promoted and distributed by Access ERIC.

The final points I want to leave with you are the following:

1. The ERIC system is a program with a 20 year history of acknowledged success in serving the information needs of a broad spectrum of educational personnel in the U.S. and has done so in an extremely cost-effective manner.

2. ERIC personnel are grateful to the Department of Education and to the Congress of the U.S. for placing the ERIC program under rather intensive public examination. It has been a scrutiny which has certainly revealed some underlying weaknesses and needs of the system. But it has also brought to public attention, to many more persons than otherwise would have known, the profound strengths and capabilities of the ERIC program.

3. My colleagues and I are in agreement with the Department of Education that new initiatives, new directions, and new components need to be added in order to bolster the effectiveness of the ERIC program. But we recommend that these new entities be supported out of new money and not taken from funds that should go for continuing support of the components which have brought ERIC to its present level of acceptance and success.

Thank you.

ATTACHMENTS

The following documents are cited in the text of Donald K. Erickson's testimony. A full set of the Attachments has been included with the official copy of the testimony and two other sets have been delivered to Maria Cuprill, Staff Director, Subcommittee on Select Education.

Attachment A - "ERIC Redesign Study." Revised 3/20/86. Information forwarded from OERI to members of the ERIC Redesign Panel.

Attachment B - Walz, Garry R., "A Response to the Work of the Committee on ERIC Redesign." September 1986.

Attachment C - Council of ERIC Directors, "Guiding Principles for ERIC Design." September 1986.

Attachment D - Council of ERIC Directors, "Four-Point Plan for ERIC Redesign." September 1986.

Mr. OWENS. I want to thank all of you for very enlightening testimony. Your written statements, of course, are very useful.

Do you agree with—funding aside—do you agree with the proposed additional components of ERIC, that they would be a good idea? Access ERIC was your idea, according to the previous testimony, adjunct ERIC, ERIC partners, do you agree that these things would be good if there were funding available for them?

Mr. ELY. We support Access ERIC, and all of tnis is premised by if there are sufficient funds to handle the clearinghouse activities. We do support Access ERIC, the adjunct clearinghouses. We have some problems with the adjunct clearinghouse concept. Some of the questions that were raised previously in regard to people paying to join the system and the quality control efforts that would be problematic in the training of people. There are a lot of questions that have to be worked out. But conceptually, we think that this is the right way to go because it's another way to support the ERIC system. ERIC partners, we support, yes.

Mr. OWENS. What kind of funding do you think a clearinghouse would need in order to do the job that needs to be done in light of the fact that we recognize that education information should be a priority within the effort to improve education within the United States and education is facing some very difficult challenges and we need to be able to get material to the practitioners?

You are limited. You can't go out and generate material; you are limited by what is generated by other forces. Understanding what is being generated now and who needs it and what the likely demand is to be shortly as we focus in more on why we are not able to compete with Japan and why the Soviets are ahead of us in space and a number of things that all go back to education, there is going to be an awakening in the country, in my opinion, to the fact that a very basic kind of need is not being met.

What would you need to operate? What kind of budget would you project?

Mr. ELY. I would prefer to deal with that, Mr. Chairman, in the aggregate for the ERIC system rather than by clearinghouse because there are certainly variations from clearinghouse to clearinghouse in our ERIC facility. But the amount that we feel would be necessary would be about $10 million in total, which is about $4 million more than the current budget. This was arrived at primarily——

Mr. OWENS. I think that's a conservative figure. It doesn't shock me at all. [Laughter.]

Mr. ELY. I guess those of us in the service professions live with smaller numbers than those in other sectors.

But we arrived at that figure by looking at the last five years and determining that we were really short about $200,000 for each of the last five years—the last ten years, actually—and that comes close to the $4 million that we feel is necessary to operate the system.

Mr. OWENS. Ms. Barnett, what kind of staffing pattern would you need? What would be the optimum staffing pattern to do what you have to do?

Ms. BARNETT. Well, currently, a typical clearinghouse has, for example, one user services person. That is one body to reach the

whole world of higher education in our case. I think it would be certainly conservative to say we could use three or four of those kind of people in each clearinghouse in order to increase the content. Coverage of the database we would probably need three or four more people to work on acquisitions and abstracting and indexing per clearinghouse.

To give you an example, I think as the concept paper was developed for ERIC partners, a figure was bandied about of 2,000 partners out there in the Nation somewhere. One of the ERIC clearinghouses over the years has had something similar to ERIC partners in its own scope area, and it was a group of 50 people that were identified as ERIC partner-type people who could help gather documents for the system.

The person at that clearinghouse coordinating those 50 people estimated that he spent a third of his time just working on that network of 50 people. If there is a network of 2,000 people, obviously the numbers are certainly much greater. And if ERIC partners is run through Access ERIC, there is quite a bit of coordination that would need to be done within each clearinghouse. I could easily see one or two people within each clearinghouse just to coordinate with Access ERIC for ERIC partners.

Mr. OWENS. You would need about two people per clearinghouse just to coordinate with Access ERIC and ERIC partners? You would have to add two people?

Ms. BARNETT. At least, yes.

Mr. OWENS. This is your very impressive processing manual for ERIC?

Ms. BARNETT. Right.

Mr. OWENS. Since ERIC is working, I assume this is necessary and it works.

Ms. BARNETT. Yes.

Mr. OWENS. Would each partner have to abide by the regulations and rules here to really be able to handle this?

Ms. BARNETT. Well, certainly each adjunct clearinghouse would. I frankly am a little fuzzy on what a partner would be doing. If they are supposed to be processing documents, then they would certainly need that. If they were merely acquiring documents, they would need portions of the processing manual in mind. They would need to know what the selection criteria were, for example. They would need to know the problems involved with copyright releases in order to get a document filmed for the microfiche collection. There is a lot of paperwork involved in just getting permission to put a report into ERIC's database.

Mr. OWENS. For that same $10 million, do you think the ERIC clearinghouses could meet the requirements as stated by the Secretary with respect to greater dissemination of materials, more interaction with professional associations? Do you think you would have sufficient personnel if you had an increase that would bring the total operation up to $10 million, you could provide the personnel to do that?

Mr. ELY. As you indicated, Mr. Chairman, that is a modest amount. But, yes, we do. We are accustomed to working with limited funds, and I believe we could.

Mr. ERICKSON. May I respond, sir? I think there is a certain temptation to say we could use wild amounts of money. I think we are rational enough to believe that if we are going to do some increases in this, we start with two or three steps, and we would like to see that some of those get solidified before we take off to larger areas.

I think the whole notion of interaction with partners and with what other agencies that are involved in information dissemination takes some time, and I think that the ERIC Access plays some role there as we see it and as we have defined it. I don't think we can come full-bloom in one year or twelve months to see that that operation or the clearinghouse's response can do it in twelve months. But I think a twelve-month time would be a good time to start to get a lay of the land, to get some of the foundations built, to relate to State agencies, to relate to local agencies, and to build those partnerships that in many cases already exist, solidify them so that information can get there.

Yes, sir, we could make a good start with that, but I won't promise you in five years we won't be back for more.

Mr. OWENS. Do any of you have anything to add on that point?

[No response.]

Mr. OWENS. On the matter of the restructuring of ERIC by a process that has been going on now, I think, for about two years, what kind of input has your association had, the directors? We have a panel listed here that, from all indications, met as a panel only once or twice, and then we had separate items produced by components of the panel, and then I never saw a final product by the panel. The final product and final set of recommendations seemed to come from the staff of OERI.

I wonder, how much do you know about that process and to what degree have you been allowed to participate in the process?

Mr. ERICKSON. Yes, we know about it. I was a member, a full member of the ERIC redesign panel, and I participated in all their meetings and discussions. You are correct, there was not a final set of recommendations or a final report from that group, and probably rightly so. It was defined in the beginning as an advisory panel to OERI. We were given quite a large charge to carry out, and I think the committee did that.

The interesting thing that happened was that the redesign panel itself became a microcosm of the educational world, and in our dealings there we found ourselves arguing the pros and cons of all the aspects that ERIC gets criticized for when it's in the field, and therefore were not able to come to any joint conclusion or consensus on a number of these issues. We discussed it. We dealt with various aspects. There were two different configurations that were presented from individual members to the group to discuss. Primarily, the discussion fell on the fact that there was no rationale presented for those, nor was there any great compelling reason why they should be accepted, so the committee just let it go. Those things were forwarded, and they were dealt with by OERI as suggestions.

The clearinghouse directors had a chance to interact with OERI about that, to give our input, and to express our opinion that more rationale was needed in order to support that. As a matter of fact, I

think we took positions in opposition to the merging of the clearinghouses or changing the names, because there was not a rationale stated that was compelling enough to make that happen. We had the input, yes, sir.

Mr. OWENS. All right. My final comment is that a document produced by the staff of OERI refers to ERIC as one of the world's most highly visible social science databases. I think that is quite a compliment, and I want to congratulate all the people who participated in making that happen with so few resources. And to hear now that if we took the $5.7 million and raised it to $10 million, you could produce a system which met all of the shortcomings which, whether rightly or wrongly, were stated by the Assistant Secretary, I think you are to be congratulated.

To think that for $10 million we could have a first-rate system excites me a great deal, and it ought to impress the Congress in general.

Mr. ELY. We would like to be given that opportunity.

Mr. OWENS. Thank you.

Mr. Williams?

Mr. WILLIAMS. Thank you, Mr. Chairman.

Mr. Ely, counting both the staff at the ERIC office facility and the staff of the various clearinghouses, what is the total number of people working for ERIC?

Mr. ELY. There are 225.

Mr. WILLIAMS. Do you have any idea of what the median or average salary is of those people?

Mr. ELY. I really don't. I would have to get that information someplace. But they are operating at various levels, which is also difficult.

Mr. WILLIAMS. Well, let me ask it another way rather than leading you to it. Will the $300,000 or so that is being asked for in an increase for ERIC go in the majority toward paying the cost-of-living increase for the staff of ERIC, assuming there would be a cost-of-living increase?

Mr. ELY. That is about all it would do. $300,000 would cover a cost-of-living increase in the salaries for the people employed by ERIC. That's all that it could do, which means that we would either have to reduce staff, find new staff at lower salaries—or punt.

Mr. WILLIAMS. Yes.

Mr. Chairman, there is the dilemma. The $300,000, for the most part, goes simply to pay needed cost-of-living increase for the people that work for ERIC. So while I tend to agree with much of what Mr. Finn has said with regard to the need for enhancement of ERIC, and I hear the people at the table not necessarily opposing those additions, it's very clear that the money isn't there to perform that. Inasmuch as ERIC has been on a starvation diet for a few years, it seems to me that to try to expand what it is going to do without fairly significant increases in money is simply not going to work.

On another matter, Mr. Ely, you mentioned that story about the three or four boxes sitting unused. Is that uncommon?

Mr. ELY. I don't think so, because most people order ERIC materials consciously. They have a deliberate reason. I suspect they

were given as part of a U.S. AID contract that someone thought this library ought to have, but neglected to plan to instruct the staff how to use them.

Mr. WILLIAMS. Do we have an effort to instruct people how to use the microfiche?

Mr. ELY. There are many self-instructional programs, microcomputer programs, training sessions that are conducted.

Mr. WILLIAMS. Run by ERIC?

Mr. ELY. Done by ERIC and done by librarians, primarily. I suspect there are more librarians in the country who are conducting ERIC training than there are ERIC personnel conducting ERIC training.

Mr. WILLIAMS. Thank you.

Thank you, Mr. Chairman.

Mr. OWENS. Mr. Bartlett?

Mr. BARTLETT. I just want to be certain that I understand that of the three recommendations for improvements that the Secretary has made, do each of you oppose or support those three recommendations—the partners, the Access, and the adjunct?

Mr. ELY. Our first statement is that we would support nothing that would detract or be at the expense of the current clearinghouse budget. That is the preface. Beyond that, ERIC is certainly supported, and ERIC partners. We have some problems and some reservations about the adjunct clearinghouses that need to be clarified before we could give it full, unqualified support.

Mr. BARTLETT. I don't want to characterize your statement, but I am really trying to understand it. Are you telling this subcommittee that everything that ERIC is doing today is more important than increasing utilization? I mean, every single thing that ERIC is doing is more important than an increase in utilization, or are there some things that you are doing that could be less important if we were to redesign the system from startup—collecting unpublished literature, for example, but don't just dwell on that. But are there things that you are doing that you believe to be—is there anything you are doing that you believe to be less important than increased utilization?

Mr. ELY. It's difficult to be dichotomous and strong in one direction or the other. But I think the fundamental answer is that if we have nothing to sell or if our material is not up to date, there is not much use putting more money into dissemination and to help people use something that isn't kept up to date and is timely and is comprehensive. That is why our emphasis has had to be on the database building function rather than——

Mr. BARTLETT. Well, is there any category of data that is less important than increasing the utilization, any at all?

Mr. ELY. I expect we could go through our studies and determine which literature is least used and knock that out. It would be hard for me to say what element that is, but that would be one way to do it.

Mr. BARTLETT. So do the three of you then view utilization to be in all cases less important than everything you are doing now? I don't want to overly characterize it, but that is the impression I am receiving.

Mr. ERICKSON. It appears that you are equating utilization with the appearance of three new elements—Access ERIC, partners, and adjunct clearinghouses—and asking us to assume that that is the case and then making a decision between that and our own operations.

We think what we have been involved with as individual clearinghouses is utilization. So really we are being asked to choose between utilization and utilization. And I can't make that distinction. I don't assume that those new entities are going to pick up and automatically do a utilization that is not now being carried out by clearinghouses.

Mr. BARTLETT. Tell me something about the council of ERIC directors, if you could. I am unclear as to how long has the council been around and what are the functions? Are all the directors salaried? Tell me something about the council.

Mr. ELY. It was first an organization made up of all of the clearinghouse directors and then later extended to the directors of all elements of the system, whether they were clearinghouses or the ERIC facility or other functional areas; then later, the assistant or associate directors. So it's a coordinating unit that meets once a year, attempting to bring together and discuss the issues. It doesn't receive any separate funding. There is a little bit that we receive through OEIR to hold our annual meeting.

Mr. BARTLETT. Is it involved in legislation? For example, was it involved in the 1986 amendments?

Mr. ELY. No.

Mr. BARTLETT. As a council?

Mr. ELY. No.

Mr. BARTLETT. Were the directors involved?

Mr. ELY. Individuals who are members of that council were. But there was no action taken as a council except to take positions on issues that were already announced.

Mr. BARTLETT. So the council itself did take positions on legislation?

Mr. ELY. It did, but I would have to say that we did not engage in political activity on behalf of those positions.

Mr. BARTLETT. Does the council interact with Congress fairly well? Is that a pretty good interaction?

Mr. ERICKSON. This is the first.

Mr. BARTLETT. This is the first?

Mr. ERICKSON. Yes, sir.

Mr. OWENS. By invitation.

Mr. BARTLETT. Good.

Thank you, Mr. Chairman.

Mr. OWENS. Does the gentleman have further questions?

Mr. WILLIAMS. No.

Mr. OWENS. If he has no further questions, then this panel will not have to wait until we have taken a break. I want to thank you very much.

We will proceed with the final panel in ten minutes.

[Recess.]

Mr. OWENS. The hearing will please be in order. Please take your seats.

The final panel is panel number three: Ms. Leslie Bjorncrantz, Curriculum Librarian and Education Bibliographer, Northwestern University; Dr. Natalie Felsher, Reading Specialist, Montgomery County Public Schools; Mr. Charles Hoover, former Director, ERIC, and former Assistant Director for Information resources, National Institute of Education; and Dr. Kenneth S. Tollett, Distinguished Professor of Higher Education, Graduate School of Arts and Sciences, Howard University.

Please remember that your written statements will be entered in the record in their entirety. If you feel you must go over the five-minute limit so your basic points are made, please feel free to do so. I was trying to control the time because I didn't want to keep you waiting too long. But you are the final panel, and we will give you a little more time if you need it.

Let's begin with Ms. Leslie Bjorncrantz. Am I pronouncing that correctly?

Ms. BJORNCRANTZ. You did quite well, but it's Bjorncrantz.

Mr. OWENS. Ms. Bjorncrantz. Please proceed.

STATEMENT OF LESLIE BJORNCRANTZ, CURRICULUM LIBRARIAN AND EDUCATION BIBLIOGRAPHER, NORTHWESTERN UNIVERSITY

Ms. BJORNCRANTZ. I am very happy to be here. My name is Leslie Bjorncrantz. I have been curriculum librarian and education bibliographer at Northwestern University library since 1970. I manage the library's collections in the field of education, and I also perform reference service in education, the other social sciences, humanities, and management.

I have been active with a number of professional associations, but especially active with the American Library Association, most recently as the elected secretary of the education and behavioral sciences section of the Association of College and Research Libraries. I am also a member of the education division of the special libraries Association.

I have assisted people in the use of the ERIC system for over 20 years. In the early 1970's I cochaired a task force at Northwestern which set up one of the first university library-based search services of the ERIC system, using the ERIC tapes.

I am speaking today as an individual, but I can assure you that many of my comments are shared by my library colleagues. As librarians, we are dedicated to providing information to other people, and we have chosen a service occupation. We have been willing ambassadors for ERIC from the very time the system came into existence. We have admired the organization of the system, the quality of ERIC's database structure and its subject indexing, and ERIC's advances in information technology. We know that ERIC has served as a model worldwide, as a model information system. In fact, ERIC-like has almost become a generic term.

However, as ERIC enters its third decade, it's an appropriate time for a review. My brief observations today will cover ERIC's users, the content of ERIC, the ERIC redesign proposal, and in summary, the relationship between funding new ERIC ventures and the management of the ERIC system.

First of all, a few words about ERIC users. Users of ERIC are more diverse than one might think. I have many examples in my written testimony, but here are just a few I garnered from a phone survey I did last week.

At Northwestern University, a school administrator came to us interested in school reform and wanted information on school district report cards required by the Illinois Education Reform Act of 1985. He found information that suited him in ERIC.

The president of Northwestern university requested an ERIC search a few months ago and asked for ERIC by name.

Evanston public library, a citizens committee preparing a report for the school board of the local elementary school district searched ERIC for the effectiveness of magnet schools.

At the National College of Education in Evanston, a parent came in wanting to know what criteria are used to define readiness for kindergarten.

At the University of Illinois, Champaign-Urbana, serving the whole State, of course, parents came in from Stonegap grade school, a small grade school in Edwards County, southern Illinois. They used ERIC information on school consolidation, school closings, and the benefits of small versus large schools to argue successfully before their school board against the closing of their local school.

In San Antonio, a city council member concerned about fairly high rate of illiteracy in the town, asked the University of Texas at San Antonio staff to search on literacy and illiteracy.

The staff of the library of the Wisconsin Department of Public Instruction does 60 to 70 ERIC searches per month for teachers and administrators. Recent topics are curricula for computer education, mandated in Wisconsin in 1988, and ways to observe the anniversary of the U.S. Constitution.

The director of the New Jersey Vocational Education Resource Center reports that commercial firms such as AT&T, military posts, hospitals, banks are frequent users of the ERIC microfiche collection.

However, you know and I know that there are many people out there that ERIC has not yet served. There are many reasons for this. Some of them cited are: lack of funding for computer searches; distances from ERIC microfiche collections and sufficiently large collections of education journals; an unawareness of how ERIC can be directly applicable to their interests.

A few comments about content of the ERIC database and the ERIC report system:

I believe strongly that ERIC should continue to emphasize its role as a collector and disseminator of unpublished documents. No one else does it in this way, and advances in education and local applications appear there before anywhere else.

ERIC should expand it s production of clearly written research summaries and other syntheses of education, information chosen to be of most interest to policy makers, teachers, administrators, journalists, parents, and other interested citizens.

ERIC should expand online access to its topical digests and research summaries and consider making these available on optical disks. However, costs are connected with these advances in infor-

mation technology, and costs must be kept reasonable so that educators and citizens, for the most part not wealthy groups, can afford to use these convenient services.

ERIC should reevaluate the publications of its clearinghouses in relation to a systemwide marketing and dissemination plan.

A few thoughts about the ERIC redesign proposal. I fully support the idea of Access ERIC. I think it should be established to coordinate systemwide products and services. Target audiences could then be defined more precisely.

If funding can be found to implement Access ERIC, clearinghouses should then be adequately staffed and adequately funded to handle their increased internal and user demands. Rather than try to work with hundreds and thousands of ERIC partners, ERIC should try to fit the partner concept into this overall marketing plan and designate as ERIC partners only those organizations most suited to the dissemination of ERIC information.

If adjunct clearinghouses are established rather than assigning additional subject areas to existing clearinghouses, each adjunct clearinghouse should have as close a relationship to the marketing and dissemination plans formulated by Access ERIC as it will to the technical specification and standards of the ERIC facility and to the policy and management standards of central ERIC.

Now, in closing, I am coming to my most important point, and it has been mentioned here before, today. My primary concern is that ERIC's new ventures be funded adequately—and I think many of these new ventures are vital—be funded adequately so that first of all the cost of establishing Access ERIC do not drain funds from the basic ERIC system activities of acquiring and making information available in the field of education; and second, that the clearinghouses be funded adequately so that they will be prepared to meet the increased demands placed on them by rising user expectations.

My final words are these: If the development of the database and its contents is hampered by lack of funds, soon there will be little to publicize. If new users come to ERIC convinced or in fact seduced by sophisticated marketing that ERIC can meet their needs, they must not go away disappointed. So, I say let's build on strengths and not destroy what works. Thank you.

[The prepared statement of Leslie Benton Bjorncrantz follows:]

Statement of
Leslie Benton Bjorncrantz
Curriculum Librarian/Education Bibliographer
Northwestern University Library (Evanston, IL)
before the
Select Education Subcommittee,
House Education and Labor Committee
on the
Educational Resources Information Center (ERIC) System
July 30, 1987

My name is Leslie Bjorncrantz. I have been Curriculum Librarian and Education Bibliographer at Northwestern University Library since 1970. I administer the Curriculum Collection (consisting of K-12 teaching materials and a research collection of children's literature) in the University Library. I select and manage the library's collections in the field of education to support the university's academic programs and research needs. I provide specialized reference service for library users interested in the field of education and also provide reference assistance to users working in the social sciences, humanities, and management.

Although I am a member of several library, information science, and education associations, I have been most active with the American Library Association, most recently as elected Secretary of the Education and Behavioral Sciences Section of the Association of College and Research Libraries. I am also a member of the Education Division, Special Libraries Association.

My first acquaintance with the ERIC system was as a graduate student at the School of Library Service at Columbia University in 1967-68. I have followed the development of this information system, with great interest, over the past twenty years as an academic librarian at two large universities, one public (University of Virginia) and one private (Northwestern University). I have assisted people using the printed ERIC indexes and have done many computer searches of the ERIC database. I co-chaired a task force at Northwestern in the early 1970's which set up one of the first university-library based search services of the ERIC database using the ERICTAPES. This service evolved into Northwestern University Library's Computer Assisted Information Service, based in the library's Reference Department. During the 1970's, I attended several ERIC Database Users' Conferences where librarians, ERIC staff, and online search service vendors could exchange ideas. This long acquaintance with ERIC as a user, as a reference librarian assisting a varied clientele, as an education subject specialist, and as a proponent of access to information both in printed and electronic sources will be reflected in my remarks about the ERIC redesign proposal.

I am speaking as an individual but, I can assure you, that many of my

observations and opinions are shared by my library colleagues. Librarians, dedicated to providing information and having chosen a service occupation),have been wiling ambassadors for ERIC (at no charge to the federal government)from the time ERIC came into existence. We have admired the organization of the ERIC system, with its clearinghouse structure and its central administrative units. We have praised the quality of ERIC's database structure and the quality and up-to-dateness of its subject indexing. We know that ERIC has served as a model for other information systems in the United States and abroad. In fact, "ERIC-like" has almost become a generic term.

In those libraries offering online search services and having extensive holdings in many subject areas (such, as college or university libraries and some larger public libraries), ERIC is usually one of the most frequently searched databases. Vendors of online search services were quick to offer ERIC to their customers, due to the relatively low cost of the database, the quality of its indexing, and the broad scope of materials covered by ERIC. Vendors of reference sources on optical disks have again chosen ERIC as one of their first offerings. In the past, ERIC has pioneered in and kept up with advances in information technology. We have no reason to believe that ERIC will not continue to do so as long as the organization has sufficient funding to incorporate fast-breaking developments in the electronic provision of information.

The Current Index to Journals of Education and Resources in Education have become standard on every list of major indexing and abstracting services. Librarians realize that the over 750 collections of ERIC documents on microfiche installed at institutions nationwide provide reliable access to unpublished reports in education. Few other professions or subject specialties have been able to provide such systematic access to their "fugitive" literatures. Many ERIC microfiche documents contain practical local applications of ideas in education and chart beginnings of trends before they may (or may not) appear in more formal fashion in published journal articles or, even later, in books. This sort of information is difficult, if close to impossible, to retrieve in any other way.

The proposals for ERIC redesign have been put forth at a logical point in the evolution of the ERIC system. Over the past 21 years, the organizational and technical design of the system (including all modifications) has had time to work and users have had many years of experience using ERIC.

My observations will cover 1)ERIC's users, 2)the content and scope of the ERIC database and the materials it represents, 3) the ERIC redesign proposals--with emphasis on ACCESS ERIC,, ERIC Partners, and Adjunct Clearinghouses; and, in summary, the relationship between funding, new ERIC ventures, and the management of the ERIC system.

ERIC USERS

Users of ERIC are more diverse than one might think. The following examples of user categories and subject areas searched successfully in ERIC were gathered during an informal telephone survey I made last week.

Northwestern University (Evanston,IL)

•A school administrator interested in school reform--"school district report cards" required by the Illinois Education Reform Act of 1985.

•A university faculty member and chair of a search committee seeking candidates to fill a senior level faculty position--a list of publications written by 14 candidates and included in the ERIC database.

•A local citizen--school policy toward pregnant students.

•Staff member of a local school district administrative office--academic standards for participation in extracurricular activities in junior high schools.

•A lecturer in the French department--teaching writing proficiency in a foreign language.

•The director of a center assisting university faculty in improving teaching methods and course content--curriculum in higher education; faculty development.

Evanston (IL) Public Library

•A member of a local community organization--networking in education.

•A citizens' committee preparing a study report for the school board of Evanston's elementary school district--effectiveness of magnet schools.

•A staff member, interested in curriculum planning, from the administrative office of Evanston's elementary school district--global education.

National College of Education (Evanston,IL)

•A parent--censorship in school libraries.

•A parent--how textbooks are selected.

•A parent--criteria used to define readiness for kindergarten.

•A parent--parent/school cooperation.

•A teacher preparing for a job interview--recent curriculum developments in several subject areas.

University of Illinois (Champaign-Urbana)

- State cooperative extension agents--rural extension; 4-H.
- Parents from Stonegap Grade School, Edwards County, southern Illinois preparing arguments against school closing to present before their school board--school consolidation; school closings; benefits of small vs. large schools.
- A lawyer checking publications of an opponent's expert witnesses.

University of Texas (San Antonio)

- A member of the San Antonio city council--literacy and illiteracy.

University of Wisconsin (Madison)

- Members of a local chapter of the American Association of University Women using AAUW grant money to produce a slide-tape and video presentation (for educational groups, teachers, parents, and the media) as part of the Computer Sex Equity Project--young women and computers.
- A citizen planning to present research results to the local school board--comparison of academic achievement in the US with student achievement in other countries.

The staff of the **Microcomputer Center/Library, Wisconsin Department of Public Instruction,** reports that teachers and school administrators request 60-70 ERIC searches per month. Recent popular topics included curricula for computer education (Wisconsin will require this in 1988), ways to observe the anniversary of the US Constitution, class size, and multi-grade grouping.

The director of the **New Jersey Vocational Education Resource Center** reports that commercial firms (such as AT & T), banks, military posts, and hospitals are frequent users of the center's ERIC document collection on microfiche.

Many ERIC users require access to education journal collections or ERIC microfiche collections housed in medium-sized to large libraries. Most college and university libraries open their doors to members of the local community during many hours of the week and accept referrals from public, business, and school libraries. Public colleges and universities must serve their communities (both local and state-wide) as part of their primary mission.

Despite the willingness of librarians to promote ERIC and the efforts of ERIC staff to publicize the system and its benefits, many potential users are still unserved. Lack of funding for computer searches of ERIC or for purchase of the ERIC database on optical disk, distance from ERIC microfiche collections and from sufficiently large collections of

education journals, and unawareness of how ERIC can be directly applicable to their work are just a few reasons why individuals may not choose ERIC as an information source. Several school librarians in the Chicago area told me that they do not have adequate funding to provide online search services for their teachers and administrators, but occasionally refer inquirers to local colleges and universities. Some universities restrict online searches to students, faculty, or staff or else charge higher fees to non-affiliated users, mainly due to the increased professional staff time involved. Most teachers and administrators need practical, timely information (often discovered in ERIC by current users) but may be unwilling to make the effort to contact a clearinghouse and wait for a reply.

CONTENT AND SCOPE OF ERIC

ERIC should continue to emphasize its role as a collector and disseminator of unpublished documents. No other agency collects and makes available this category of education information.

ERIC should continue its indexing of education journal articles since the Current Index to Journals of Education has become an established and respected reference source. No other general index to education journals is computer searchable from its first month of publication.

ERIC should re-evaluate the publications of its clearinghouses in relation to a system-wide marketing and dissemination plan.

ERIC should expand its collection of and production of research summaries, state-of-the-art reviews, and other syntheses of education topics covered in the ERIC system and chosen to be of most interest to policy makers, teachers, administrators, journalists, parents, and other interested citizens. All reviews should be clearly written and should make direct reference to journal articles and ERIC reports on microfiche so that users can do more in-depth study, if needed. Research summaries would also be useful to college students and faculty members. These reviews should be included in the ERIC microfiche collection.

ERIC should also consider expanding their ERIC Digest Online service (now available on the commercial computer bulletin board called "The Source") to include longer research summaries that could be accessed through the major commercial vendors of online services. Computer-searchable, full-text databases have been developed for business and legal information. Many newspapers can be searched in this way. Any person at home or in an office, as long as he or she has a personal computer, a modem, a printer, and a subscription to the online service, could print out the information needed in a matter of seconds. Each time the database was used, the ERIC system would be publicized. However, full-text databases tend to be expensive to develop and to search. The costs need to be kept reasonable so that educators and citizens can afford to use the service.

State-of-the-art reviews could also be made available on optical disks for the use of libraries, associations, businesses, news organizations, and other locations where many users need quick access to current education information. At least one general encyclopedia and a few scientific encyclopedias are now searchable on optical disks.

THE ERIC REDESIGN PROPOSAL

ACCESS ERIC

The coordination and marketing of system-wide products and services is a worthy goal for the establishment of ACCESS ERIC. The concept paper on ACCESS ERIC by John Collins (Director of the Monroe C. Gutman Library, Harvard Graduate School of Education) is full of interesting and visionary ideas. Market research must be undertaken to establish target audience priorities so that ERIC can direct its resources more precisely. Care should be taken to enhance but not duplicate existing ERIC dissemination efforts by both nonprofit and for-profit organizations.

The relationship between ACCESS ERIC's intention to develop synthesis documents and the current and future publishing activities of the ERIC clearinghouses needs to be coordinated carefully. It is unclear how writers not already employed by ERIC would be recruited, how their work would be administered and evaluated, and how they would be compensated. Perhaps the expertise of clearinghouse staff members could be called upon for much of this work.

If funding can be found to implement ACCESS ERIC and if ACCESS ERIC succeeds in bringing in more ERIC users, clearinghouses must be staffed to handle the increased demands.

ERIC Partners

The concept of ERIC Partners, including the establishment of hundreds of organizations as outlets for ERIC information, seems to imply extra paperwork and staff time for ERIC personnel with two few major benefits for either ERIC or the partners. Rather than to attempt to coordinate so many "players," ERIC should try to fit the concept of ERIC Partners into a system-wide marketing plan, establish priorities, and designate as ERIC Partners only those organizations most suited to the dissemination of ERIC information.

Adjunct Clearinghouses

If some subject areas are not being covered sufficiently by ERIC, responsibility for them could be assigned to existing clearinghouses, with additional funding attached.

However, if one or more adjunct clearinghouses are established, two

concepts expressed in the position paper concern me. First, if adjunct clearinghouses are being considered to fill in gaps in ERIC subject coverage, seed money and a 3 to 5 year contract may not be enough to ensure continuous information flow. If an organization sponsoring an adjunct clearinghouse does not live up to ERIC expectations, what will be the mechanism for improvement or termination?

Second, the statement that "an adjunct clearinghouse will have the option of engaging in the same sets of organizational relationships with other ERIC system components such as ACCESS ERIC, the ERIC partners, and the other clearinghouses" is troubling because coordination and communication among all components of the ERIC system through ACCESS ERIC could then be compromised. Each adjunct clearinghouse should have as close a relationship to the marketing and dissemination plans formulated by ACCESS ERIC as it will to the technical specifications and standards of the ERIC facility and to the policy and management standards of Central ERIC.

SUMMARY

ERIC, at the beginning of its third decade, provides a valuable service to people seeking information about education. Its many strengths are the result of the foresight of its planners and of the dedication of its staff. Although well known by many, some potential users remain unserved. Coordination of ERIC's marketing, dissemination, and training efforts should be coordinated by a new unit called ACCESS ERIC, in constant and close consultation with other ERIC system components.

My main concern is that this vital new venture be funded adequately so that 1)the costs of establishing ACCESS ERIC do not drain funds from the basic ERIC system activities of acquiring and disseminating information in the field of education and 2) the clearinghouses will be prepared to meet the increased demands placed on them by rising user expectations.

If the development of the database and its contents is hampered by lack of funds, soon there will be little to publicize. If new users come to ERIC, convinced by sophisticated marketing that ERIC can meet their needs, they must not be disappointed. Let's build on strengths and not destroy what works.

Mr. OWENS. Thank you.

I think Dr. Tollett has a time problem and will have to leave. So I would like to take Dr. Tollett next.

STATEMENT OF KENNETH S. TOLLETT, DISTINGUISHED PROFESSOR OF HIGHER EDUCATION, GRADUATE SCHOOL OF ARTS AND SCIENCES, HOWARD UNIVERSITY

Mr. TOLLETT. Thank you very much, Chairman Owens. My name is Kenneth S. Tollett. I am distinguished professor of higher education at Howard University. This is for identification. I was formerly director of the Institute for the Study of Educational Policy and a member of the Carnegie Commission on the Future of Higher Education. I have also taught courses entitled "Problems and Innovations in Education," where considerable use was made of ERIC, and of course running a research policy institute much use was made of ERIC also.

Your allusion to my having to go to another meeting, Mr. Chairman, certainly suggests that at this late hour it may be true that the world is ruled by people who stay to the end of the meeting. [Laughter.]

I have been instructed to speak five minutes. You may already be gathering that is not one of my long suites to make short statements. I haven't even started my statement yet, and I am doing nothing but preliminaries. [Laughter.]

Indeed, I further suffer from a Gerald Ford syndrome: I have great difficulty speaking and sitting at the same time. And with our new president, I would like to say something before I speak. [Laughter.]

What I would like to say is that this morning I would—well, it's afternoon now—would like to talk about three functions of education: the production, citizenship, and consumption functions. The production function I think is extremely important to set the backdrop for what I am going to say about ERIC: aids to societal output of goods and services by finding and identifying talent, framing it in vocational, technical, and professional skills, doing research which is valuable and useful to society's production forces, and servicing production units through formal and informal education.

The production function of education is intimately related to education as an investment in human capital, which is comprised of knowledge, skills, and health. Recent concern and discourse in the United States about its economic competitiveness are especially related to the production function.

The citizenship function, of course, is very much worth noting in the year of our bicentennial because our founding fathers or the founders—sometimes I have trouble saying "our"—but the founding fathers certainly were preoccupied with a highly educated citizenry in order to run a democratic republic, and it justifies President Cheek's allusion to Epictetus when he said in reflecting on the character of Greek society of his day, he observed that man has decided that only free men shall be educated, but God has decreed that only the educated shall be truly free.

The consumption function, of course, is the concern with developing the tastes and value systems to some extent of people in our educational system.

The above considerations explain why there has been increasingly significant and substantial involvement in education by the United States Government since the Northwest Ordinance of 1787, the Land Grant Acts of 1862 and 1890, and the explosion of Federal legislation and involvement in the mid-1940's beginning with the G.I. Bill of Rights in 1944 and culminating in the Elementary and Secondary Education Acts, both of 1965.

With the above in mind, I should like to emphasize that the public has a special stake in the national Government maintaining and expanding its special support of education, including the role of an expediter, stimulator, and resource information center such as ERIC, which has a major catalytic, multiplier effect throughout the Nation.

It is unnecessary for me to document that ERIC is a very frequently used database with an international reputation for reliability and credibility. Virtually no one challenges the proposition that we are moving into a post-industrial society driven by information and knowledge. The production of goods is being replaced by the provision of services. Incidentally, Government is a quintessentially service institution, which means ERIC's value and importance are self-evidently increasing and substantial.

The genius of our Anglo-American political and legal history is that except for major crises and dislocations, radical or major structural changes are rarely made, for they can be destabilizing and disruptive, if not demoralizing. All bureaucracies are easy targets for cheap shots. But unless you subscribe to a nightwatchman theory of Government, we cannot return most major Governmental services over to the private sector. Therefore, I am skeptical about any major change of ERIC, although, of course, all human institutions may be improved.

I know it gets late early, in the words of Yogi Berra, and I am coming to a conclusion. [Laughter.]

ERIC is—I know that some people—they register in time. [Laughter.]

ERIC is a success story. Any significant change in its structure, organization, or operation should be approached with great circumspection and care, lest it be destabilized and demoralized, possibly resulting in its demise. In a knowledge-information era, ERIC should be strengthened and enhanced.

[The prepared statement of Kenneth S. Tollett follows:]

Testimony Of

KENNETH S. TOLLETT
Distinguished Professor Of Higher Education and
Former Director Of The Institute For The
Study Of Educational Policy
Howard University
Washington, D.C. 20059

Before The

SUBCOMMITTEE ON SELECT EDUCATION

Of

THE COMMITTEE ON EDUCATION AND LABOR

Of The

UNITED STATES HOUSE OF REPRESENTATIVES

On

Oversight Hearing On The ERIC System

In

Room 2257
Rayburn House Office Building
Washington, D.C. 20515

On

Thursday, July 30, 1987

9:30 a.m.

I. Introduction

Mr. Chairman Major R. Owens and other distinguished members of the Subcommittee, my name is Kenneth S. Tollett and, for the purposes of identification, I am presently Distinguished Professor of Higher Education and former Director of the Institute for the Study of Educational Policy (ISEP) at Howard University and member of the Carnegie Commission on the Future of Higher Education. It is an honor and a privilege to testify before you this morning on the Oversight Hearing on the Educational Resources Information Center (ERIC) System.

Education may be defined as essentially an intellectual process that creates and transmits knowledge; develops and structures critical cognitive powers; enhances and reinforces sensitivity and sensibility; and combines the dominant urges of selfconscious humankind to explain, control, and revere or reunite with nature into a purposeful pursuit of understanding human relationships and the relationships between humans and nature. In the elementary and secondary educational arenas it also plays a socializing and acculturating role in human development.

Further, Education may be regarded as performing three major functions -- to wit -- production, citizenship, and consumption. A function may be defined as an activity or operation performed in the course of fulfilling the purposes of education.

The production function aids the societal output of goods and services by finding and identifying talent; training it in vocational, technical, and professional skills; doing research which is valuable and useful to society's production forces; and servicing production units through formal and informal education. The production function of education is intimately related to education as an investment in human capital which is comprised of knowledge, skills, and health. Recent concern and discourse about the United States' economic competitiveness are especially related to the production function of education.

The citizenship function of education is concerned with activities that relate to preparing students, graduates, and teachers or professors of educational institutions to perform civic or citizenship responsibilities. In the Bicentennial Year of our Constitution, it is well worth noting that the Founding Fathers were preoccupied with this function of education, for they felt that a democratic republic could not function effectively under the rule of law and survive democratically without well educated and civicly committed and responsible citizens. This function of education justifies President James E. Cheek's allusion to Epictetus when he said,

"In reflecting on the character of Greek society in his day, he observed that man has decided that only free men shall be educated, but God has decreed that only the educated shall be truly free."[1]

The consumption function of education is concerned with the activities of students, graduates, teachers or faculty who consume the goods and services of an economy and develop tastes, sensitivities, and opportunities. This function also shapes the life styles of the educated. It is probably in this area that values, ideals, and, even, a sense of tradition may be shaped, although the citizenship function may do this more explicitly and directly.

The above considerations explain why there has been increasingly significant and substantial involvement in education by the United States Government since the Northwest Ordinance of 1787, the Land Grant Acts (Morrill) of 1862 and 1890, and the explosions of Federal legislation and involvement in the mid 1940s, beginning with the G.I. Bill of Rights (Serviceman's Readjustment Act) in 1944 and culminating with the Elementary and Secondary Education Act and the Higher Education Act, both of 1965.

Indeed, in a lecture at Harvard University's Graduate School of Education under the theme of Rethinking the Federal Role in Education in 1982, I reported that Congress had by 1980 enacted "eighty-nine pieces of legislation" related to educational goals. In that lecture entitled "The Propriety of the Federal Role in Expanding Equal Educational Opportunity," I set forth two propositions, which I believe are worth quoting this morning:

> I argue that [a] federal role [in education] does exist, and should be maintained, revived, or reinforced, if necessary, to meet the national need for equal educational opportunity: an educated populace is our greatest asset. In essence, my argument rests on the following propositions: (1) In pursuance of the great plenary powers reposed in the federal government -- for example, general welfare, commerce, and common defense -- Congress may enact educational bills that are necessary and proper for the accomplishment of the objectives of these powers.

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[1] James E. Cheek, Higher Education's Responsibility for Advancing Equality of Opportunity and Justice (ISEP Occasional Paper, 1977).

> (2) Given the constitutional and social implications of the Reconstruction amendments and the civil rights movements of the 1960s, the federal government has a legal obligation to advance equality in general...[2]

It is the first proposition that is primarily related to my testimony this morning, although the second one is obviously relevant also.

With the above in mind, I should like to emphasize that the public has a special stake in the National Government maintaining and expanding its special support of education, including the role of an expediter, stimulater, and resource information center such as ERIC which has a major catalytic, multiplier effect throughout the nation.

II. ERIC: A Much Used, Sophisticated, Reliable, and Credible System

It is unnecessary for me to document that ERIC is a very frequently used data base with an international reputation for reliability and credibility. The combination of its sixteen clearinghouses; nine major Products, ranging from Abstract Journals to Computer-Output-Microform (COM) and Document Reproductions; Document Delivery through Document Reproduction Service (EDRS); Microfiche Collections; Online Retrieval; and Search Services makes it a sophisticated system. Thus, it is an invaluable National educational resource and asset.

Virtually no one challenges the proposition that we are moving into a postindustrial society driven by information and knowledge. The production of goods is being replaced with the provision of services. Incidentally, government is a quintessentially service institution which means ERIC's value and importance are self-evidently increasing and substantial.

III. Dont' Fix It Unless It is Broken

The genius of Anglo-American political and legal history is that except for major crises and dislocations, radical or major structural changes are rarely made, for they can be destabilizing and disruptive, if not demoralizing. All bureaucracies are easy targets for cheap shots, but unless you subscribe to a nightwatchman theory of government, we cannot return most major governmental services over to the private sector. Therefore, I am skeptical about any major change of ERIC, although, of course, all human institutions may be improved.

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[2]Tollett, "The Propriety of the Federal Role in Excpanding Equal Educational Opportunity," Harvard Educational Review 52 (1982): 432.

IV. Conclusion

ERIC is a success story. Any significant change in its structure, organization, or operation should be approached with great circumspection and care lest it be destabilized and demoralized, possibly resulting in its demise. In a knowledge-information era, ERIC should be strengthened and enhanced.

Mr. OWENS. Thank you, Dr. Tollett. Since you have to leave, just let me ask you a couple of questions before you go. You did it all within the time limit.

Mr. TOLLETT. It's a record. [Laughter.]

Mr. OWENS. On the question of ERIC not serving practitioners, would you make a comment, please?

Mr. TOLLETT. Well, I think it is serving. Even the statistics this morning, someone said it was one-third. It definitely is serving practitioners, although I have been more intimately related with researchers. And I would like to defend the use of ERIC by researchers. After all, what's wrong with researchers using ERIC's services?

Mr. OWENS. Well, do practitioners and great decision makers like Governors and mayors, do they use researchers and experts?

Mr. TOLLETT. I have great difficulty coming to the conclusion that the category you just stated use anything. [Laughter.]

Mr. OWENS. Do boards of education?

Mr. TOLLETT. Except their own impulses.

Mr. OWENS. Do boards of education ever use researchers and experts in education?

Mr. TOLLETT. Yes, sir, I think they do.

Mr. OWENS. Do teachers unions ever use research in education?

Mr. TOLLETT. I would suspect that in doing research they would. In fact, I know that is the case, and I was preparing a paper not too long ago and some educators at NEA obtained some information very quickly for me through ERIC. I don't have a terminal in my office. I know in that group they make great use of it.

Mr. OWENS. Do you know a great body of people out there who are dying to get education information who find that ERIC is not useful?

Mr. TOLLETT. No. I can't imagine anyone who is interested in education for information in research not being interested also in ERIC and not making use of it from time to time.

Mr. OWENS. Thank you very much.

Mr. TOLLETT. May I be excused? There is another congressional body to whom I have a commitment.

Mr. OWENS. Yes. Thank you very much for coming. We appreciate it. We appreciate your patience in waiting.

And we appreciate your patience, Dr. Felsher, also. We are going to give Mr. Hoover the very last word because I think it might be appropriate in this case.

Dr. Felsher.

STATEMENT OF NATALIE FELSHER, READING SPECIALIST, MONTGOMERY COUNTY PUBLIC SCHOOLS

Ms. FELSHER. Thank you, Mr. Chairman, for the opportunity to testify today on the subject of ERIC.

Mr. OWENS. Would you pull the mike a little closer?

Ms. FELSHER. The invitation to testify stated that the testimony I was to prepare and deliver should reflect my use as a practitioner of the existing ERIC program. To comply with this request accurately and concisely, I must first describe my job and what it entails. I am a school-based reading specialist in a county school, a

school that services more than 800 students and has a professional staff of approximately 35.

As a reading specialist, my job is made up of three interlocking components. First, I teach reading. Students with reading and language arts problems are part of my program. Many times I teach grade-level reading within the classroom. Other times, I work with gifted readers in a pull-out program. Readers who need differentiated reading instruction to fulfill their needs based on their strengths make up my program.

In-servicing staff members on new, updated, and adaptive curriculums often includes the gathering of needed materials and strategies. Included in this second component of my job is demonstrating teaching, both in the classroom and in the workshop.

As a specialist, I serve as a member of the school's educational management team, EMT. This team meets regularly onsite to assess, evaluate, and plan programs for individual students based on their needs and our resources. As a reading specialist, I have a broad and multifaceted job.

Let me interject the following at this point. I have been fortunate that ERIC was and is an integral part of all the educational institutions I have been associated with in the past decade. I am basically a provider of services to students and to teachers, and ERIC has consistently allowed me to provide cogent and detailed theories, strategies, and programs that meet my and their current needs. Some examples follow:

Last year, an interest in whole-language reading instruction surfaced while researching alternate primary reading strategies using ERIC's database. Further research using ERIC revealed further thought on this topic, thus a bonus of material-less and in-place strategies. My experience with ERIC database at this point led me to organize an onsite workshop for our interested teachers. The whole-language reading instruction method is now an integrated segment in our primary grades, and much of the impetus was created by my original ERIC research.

This past winter I was approached by a new intermediate teacher who was anxious about the enrollment of a handicapped, gifted and talented student. The teacher had taken a course on teaching the gifted, and another on teaching handicapped students. The combination presented a knowledge gap. Using ERIC, we pinpointed gifted-handicapped and retrieved a series of articles both descriptive and practical. Her anxieties in dealing with the student were thereby mitigated.

The topic of attention-deficit disorder surfaced several weeks in a row at our EMT sessions. Most of us knew summary-type information: the definition, the treatment, ways of identification, et cetera. Working with a limited amount of ADD information made decisions hard. An ERIC search again provided current, germane information, information that broadened our base knowledge so that when we spoke of the topic, we were able to present relevant facts and background. The bonus in this case was that we had literature to present to questioning parents.

Students with special problems, parents with questions, teachers in search of theories, materials, strategies, and techniques, and teachers and staff members striving for professional growth have

been dependent on ERIC as a resource, a resource that has allowed them to be as selective as possible and a resource that homes in on target areas faster, more abundantly, and with a high success rate.

ERIC has allowed me to disseminate current research and theories along with strategies and techniques, thus removing many of the barriers between research and practice, an ideal partnership.

Currently, ERIC is helping me research my 1987 personal school year objective, parent outreach, an updated bibliography for a presentation I will be delivering at the Maryland Reading Institute this fall, and the updating of references for a computer article I am writing. ERIC has been a powerful ally these last years.

In preparing this testimony, I read through the materials. All the papers contain valid ideas. ERIC has served me well. But there is room for improvement, such as a faster service. Earlier, I said I was fortunate in having prior exposure to the usage of ERIC both in my academic training and in my professional career. I have observed this early exposure to ERIC is not the usual pattern. ERIC as a topic for most practitioners is unknown. The articles mentioned above called ERIC "inaccessible." But I disagree. In fact, it is accessible, but it is invisible to most practitioners.

Those of us who have been exposed to ERIC during our academic training will seek ERIC out wherever we go. What ERIC needs is exposure. What ERIC needs is significant publicity. What ERIC needs is an effective outreach program to advertise its existence.

ERIC is an information system that is almost 30 years old and has supplied an impressive amount of diverse information. It is a viable resource for those of us who have been made aware of its existence. It allows us access to the most current theory and research and to many practitioner-oriented materials and strategies.

In the last 20-odd years, the realm of education has evolved and grown. In these same years technology has evolved and grown. In order to merge the two—that is, to merge education and technology insofar as ERIC is concerned—it will certainly be necessary to update and modernize this activity. It is essential that any programmatic update be undertaken in a fashion designed to maintain the integrity and strengths of the proven ERIC system. As such, update and growth should not be undertaken at the expense of the existing program.

The United States Department of Education, the overseer of our Nation's educational programs, has given us a powerful tool, ERIC. As a practitioner, I have used and will continue to use ERIC. As a practitioner, I ask you to make certain that the overseer will continue to nurture ERIC's health and growth. Thank you.

Mr. OWENS. Thank you very much, Dr. Felsher.

Mr. Hoover, as a former director, I think it's appropriate that you should have the last word. We want to thank you for appearing here today.

STATEMENT OF CHARLES HOOVER, FORMER DIRECTOR, ERIC, AND FORMER ASSISTANT DIRECTOR FOR INFORMATION RESOURCES, NATIONAL INSTITUTE OF EDUCATION

Mr. HOOVER. Thank you for the opportunity. As has been mentioned several times today, this is the first time in 20-some years of

ERIC's existence that it has had the opportunity to get the exposure that it is getting today. I hope that it will prove very beneficial to the system.

To give you a little bit of my background, I was a teacher, I was a school administrator, and I got interested in computers and became a systems analyst in Montgomery County 20-some years ago. From there I went to the National Science Foundation and later to the old office of education, now the Department of Education.

I joined ERIC as a consultant in 1969, and in 1970 I was asked to join the system and became head of the program until my retirement in 1985, with the exception of about four or five years when I was assistant director, and Bob Chesley ran the system for those four or five years under my direction. It was one of a number of programs that I had. Even at the time of my retirement I was still running ERIC.

In trying to think of what I might say orally—because I have provided some written testimony which I think is probably much more coherent than what I have to say right now—I have literally changed my mind ten or twelve times, especially as I sat here and heard the responses to some questions. I felt at times I wanted to jump and say that's only part of the story.

I would dwell on and repeat really what has been said many times today, and I would ask that the committee very carefully consider any kind of change to the system which requires additional funding, because I know what is going to happen. It has happened time after time. It is going to come out of the hides of the present budgets.

We have seen a gradual erosion of all types of services, functions, and products continuously over the last ten years. It is very obvious, when you take and fund a program on a straight line and a program that is as labor-intensive as ERIC is. About 85 percent of the budgets in ERIC go into salaries. As Lynn Barnett pointed out, what has happened is in terms of the quality of personnel, the turnover of personnel, and most importantly, we are starting to lose institutional memory, which is extremely important in a system like ERIC.

I am going to jump to a couple of little comments. The issue about user and the issue about serving users, I am going to toot my own horn today by saying that in 1971 I made a decision that in the ERIC system we were going to start to serve practitioners. As was mentioned earlier by Don Ely, the system was originally set up to handle basically the research documents at the Office of Education, expanded later to other organizations within the Government and later to outside of the Government. I can tell you that at the time that I joined ERIC as a head, we had a policy that we would not put into the system curriculum guides.

Now, one of the things that obviously principals and teachers want to look at are curriculum guides. Now, you have a problem when you are trying to serve the research scholarly community and the practitioner community. We have been subjected over the years to criticism because this is garbage to this person and this is useless to that person. The teachers who wants to look for a curriculum guide doesn't want a piece of research out of Harvard or

any other school for that matter. They want a curriculum guide. This has been very difficult to handle over the years.

By the way, there was an individual in the New York State education department who was one who pushed the issue about putting curriculum guides in. That same gentleman a number of years later, when he was running a Federally funded program for information distribution in the State of New York, did an informal little study. One of the problems we hear about is users not using the system. But there are people who are using the system who do not know they are using the system. They go to a library and they go to a curriculum specialist or they go to a resource teacher and ask for information, and it may be given to them and they don't know it came from ERIC at all.

One of the things that this individual did, he took and traced some searches—this is in the era when we first started doing computer searches—to see what happened, how many times was that one search used. Would you believe that on a small, not a sophisticated study, the average search resulted in five users using one search.

So in other words, what I am trying to get at is that people are using the system, it is being used, and they don't know it's ERIC.

There was a study a number of years ago by a well-known information dissemination individual by the name of Dr. Ron Havelock. By the way, there are hundreds of studies of ERIC. He took 43 studies and analyzed those to find out what was one of our major problems. That major problem that came out was "awareness and access," awareness that the system existed, where was it, and how do I get access to it.

For the last five years that I served as the head of ERIC, I think it's safe to say that if there was one thing I pushed every year in budget, please help us on the issue of awareness and access. I am happy to say that at least now they are calling it Access ERIC. By the way, if you look carefully at Access ERIC and you go into a little history of ERIC, you will find practically the same strategies were stated 10 years ago.

What has happened over the years is that we have not been able to carry out some of the things we wanted to do and we have had to cut continuously. We literally have reduced the number of documents that we would accept into the system.

I think I would like to stop at this point and once again thank you. I have had many firsts with ERIC. I saw a number of new products and new services. But this is the first that I appreciate the most, the opportunity to at least have the system get the exposure it is receiving today. I thank you.

[The prepared statement of Charles W. Hoover follows:]

TESTIMONY OF CHARLES W. HOOVER, RETIRED DIRECTOR OF ERIC

I want to thank the Committee for this opportunity to testify on behalf of the ERIC program. Let me introduce myself. I'm Charles Hoover and I retired from Federal service in April, 1985.

My first affiliation with ERIC was in 1969 when I was assigned from my position as a systems analyst in the Office of Education to provide technical assistance to the ERIC program. I later joined ERIC as a staff member and was appointed Director in the summer of 1970. From 1970 through 1985, I had immediate and direct responsibility for the ERIC program. As an aside, I might mention that in all those years I was never asked to testify or provide information about ERIC to any Congressional Committee. Therefore, I am doubly pleased to be able to do so now.

I would like to provide just a brief background on ERIC in order to present some context for my later remarks. The original charter in the 1867 legislation which created the Office of Education contained a clear mandate. Specifically, it was that of "diffusing such information respecting the organization and management of schools and school systems and methods of teaching as shall aid the people of the United States in the establishment and maintenance of efficient school systems, and otherwise promote the cause of education in the country." Given such clear mandate, a 1960 memorandum from the Assistant Commissioner for Research stated, "Logic would appear to indicate that there is need for a central point in the United States where all educational research is available." I would parenthetically add to this statement that it should read "educational resources" and not just research. I refer to these two statements in order to indicate that not only is there legal authority but also a mandate for a system such as ERIC. As you know, the system did not come into being until 1967.

During my tenure (1970 to 1985), we developed a mission, objectives, and functions statement which follows. (I believe these are still applicable.)

ERIC's mission is to bring the English-language literature of education to the attention of the educational community and to make it as easily accessible by this community as possible, so that improvements in the educational process can be facilitated. For this purpose, the educational community is broadly defined to include: researchers, teachers, administrators, policy makers, librarians, counselors, students, and those members of the general public pursuing an educational interest.

To accomplish this broad mission, ERIC has established a number of specific objectives which are in turn achieved by a set of actual operational functions. ERIC's objectives are: Bibliographic Control, Announcement to the Educational Community, Availability of Documents in Full Text, Permanent Archive, Computerized Retrievability, Information Analysis, Synthesis, and Reduction, Reference and User Services, Service to All Levels of User, Low Cost, Wide Dissemination, Leadership in Technology and Standards.

Some of the functions that ERIC performs to achieve these objectives are: Acquisition of Documentary Material, Selection and Screening (to Achieve Quality Control), Cataloging, Indexing, Abstracting (Technical Processing), Lexicography (The ERIC Thesaurus and its use in indexing provide controlled vocabulary access to the ERIC database, to complement the free text access provided by modern retrieval systems), Database Generation and Maintenance, Abstract Journal Production, Information Analysis Product (IAP) Publication, Document Delivery, Professional Meeting Participation, Reference and User Services, Training, Technical Assistance.

ERIC is a decentralized system comprising some twenty organizations and extending across the Government, non-profit (universities and professional

organizational, and for-profit sectors. At the top is the Federal component referred to familiarly as "Central ERIC". This is the policymaking, funding, monitoring, and administrative/management unit. In the middle are the sixteen ERIC Clearinghouses, each located at a non-profit institution already having a considerable interest in and expertise with a particular part of the large field of education. The Clearinghouses are each multi-discipline in nature, but can be characterized as being one of three types: Level-Oriented, Discipline-Oriented, Problem-Oriented. The private or for-profit sector is represented by three contractors that support services in high technology or commercial areas (computer systems, micrographics, and publishing).

I included the above inorder to provide some understanding of ERIC and, specifically, Clearinghouse operations. Without going into great detail, I hope it is clear that the operational aspects of this system are labor intensive and require professional level skills. Each of the operations costs money. A major problem over the years has been one of bringing an understanding to those who control the purse strings regarding the fact that the operational aspects of Clearinghouses are costly.

The ERIC budget from 1979 to the present has been virtually flat. This has caused a gradual erosion of many products, services, and functions. These included reductions in the number of documents accepted into the system, outreach activities, marketing efforts, quality of personnel, as well as turnover in personnel. (As an aside, it takes about six months to train an indexer-abstracter). Additionally, we had to reduce the number of special projects that could be carried on by the Clearinghouses and also the number of documents that the system would create. Even with the reductions that I have noted, we were able to continue to improve the system, creating new products and services--however limited. It should also be noted that several

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contracts are now performed at no cost to the government, such as the production of microfiche and the Abstract Journal--Current Index to Journals in Education.

I am sure you are aware of ERIC's wide accessibility throughout the United States and foreign countries. I know it has been referred to in other documents which have been provided to the Committee. One document, however, which does not seem to have been mentioned is what we referred to as The History of ERIC. The full title is "ERIC, the First Fifteen Years, 1964-1979." I mention this because it provides a good review of the development of the system. Attached to this presentation is a list of what we called, "Strategies for ERIC" presented as part of a planning document for FY 80. I think that if one studied that list of twenty-one items, it would look very similar to those items mentioned in the current plans dealing with ERIC in its third decade. The point to all this is that this system has continually tried to improve and expand its products and services, but at the same time it has been hampered year after year by fiscal constraints. Continually, the system has been given superficial lip service by "the powers that be". This was usually followed by criticism based upon naivete and ignorance. I used to refer to it as the "All Indians are redheads. I saw one once." syndrome. I notice that in some of the papers prepared for future activities in ERIC Clearinghouses, ignorance and naivete still abound.

Another characteristic of the past ten to twelve years has been the "quick fix" type suggestions for changes or additional functions of ERIC. These usually resulted in no additional funds but, rather, they were to be funded from current budgets. This tendancy seems to continue.

I think this is sufficient background information, and I will now address the current plans. They sound good on paper, upon first reading. However,

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on later readings I was tempted to go through to provide comments on each item. I do not think this would serve any useful purpose, however. I do have some general comments, particularly on several of the major activities. I was struck immediately that in all of the documents there is no mention of a budget figure for maintaining current system operations. Especially, there is no mention of funding for restoring some of the reductions that I referred to above. For one example, there is no increase in funding for additional documents, both as input and those created by Clearinghouses. I suspect that what is really indicated by the documents I have seen is that the system will probably be straight-lined as it has been for the past eight to nine years. In addition, some of the new proposed activities will have to be funded out of the straight-line budget. Let me use as an example the adjunct Clearinghouses. It is my understanding that up to three new Clearinghouses will be created with contracts running from three to five years. The major difference between the adjunct Clearinghouses and current Clearinghouses would be that the new ones will receive Federal funding up to $50,000 for the first year only and the rest of the required funding would be by the host institutions or organizations. During the years I was involved in RFP's for Clearinghouse contracts, I knew very well the cost for operating a Clearinghouse, and I view this expectation as ridiculous. If an organization proposes to create a Clearinghouse and follow all of the rules and regulations imposed on current ERIC Clearinghouses, the cost would be minimally $200,000 per year. I say minimally because I would assume that the organization will need to provide an additional fund of at least $40,000 to $50,000, bringing annual requirements to $240,000 to $250,000. I don't wish to go into great detail regarding how I arrived at the figures, but I submit that the staffing of a Clearinghouse requires staffing of five or six people and four or five of those must be professionals.

Another major proposed activity was so-called ERIC Partners. Here again, the paper seems to indicate that little has been done collaboratively with professional organizations and institutions. I can't speak for the current situation, but I do know that for years we had linkages with at least 350 professional organizations. When I say linkages, I am referring to signed agreements. We also provided on-site technical assistance in fifteen state departments of education. These activities need constant nourishment and when funds dry up, collaborative efforts quickly disappear. I believe that the idea of offering ERIC Partners only a certificate as an incentive is rather naive.

I would like to digress at this time and refer to a statement on collaborative arrangements mentioned in one of the descriptions of future activities. It is the one dealing with ERIC's relationship to the National Diffusion Network, the Regional Laboratories, and National Research Center. Without going into great detail on the specifics, I must state very emphatically that ERIC tried for <u>years</u> to establish collaborative arrangements and services with these institutions. The stone wall we continually ran into was absolutely appalling. A number of the laboratories and centers refused to even submit their government funded documents to ERIC. I cannot recall the number of times that we tried to develop collaborative arrangements with NDN. I am glad to see that OERI recognizes the value of developing future collaborative arrangements. Here again, however, it does require some funding for key people in the labs, centers, and ERIC system in order to develop, nurture, and expand appropriate dissemination efforts.

Approximately nine years ago Dr. Ronald Havelock reviewed 43 studies of the ERIC system. (Over the years there have been hundreds of studies of ERIC, as well as a number of masters and doctoral theses.) The major conclusion that Havelock reached in his analysis was that ERIC's major system problems were awareness and access. The term awareness encompasses letting people know

ERIC exists and what it consists of. Access deals with how one gains access to products and services. I am sure if you talk to any one of the supervisors that I had in my last six or seven years as Head of ERIC, he will emphasize that I continually harped on the theme of awareness and access. I practically begged for funds to address these issues. I mention this preliminary to my comments about the proposed Access ERIC activity. With one exception, I have no major disagreements with the Access ERIC activity. Here again, I suspect it is grossly under funded if all activities are implemented. I suspect that again, as has happened so frequently in the past, great ideas for new products and services are imposed upon the system without additional funding or they are grossly underfunded.

Two other comments need to be made about the plans for the future. First is the idea of the system handling commercial products. Over the years the Publishers Association and ERIC representatives met on this issue. A major stumbling block has been how to handle one publisher's products and not another's. Also, just who would pay for the huge volume of commercial products? The copyright issue in the handling of commercial products is also not a simple issue.

Another idea which needs to be carefully checked is the collection of fees for ERIC products and services. It is my understanding that fees collected for government funded products and services must be sent to the U. S. Treasury. Simply put, fees cannot be used to offset program funds.

The National Technical Information Service, a system similar to ERIC, had in its original legislation the ability to charge for services and products and then use the funds for operations. I understand that today they are close to becoming self-supporting. I believe it has taken twenty plus years to accomplish this and that their products and services are much more expensive

than ERIC's. In addition, their consumers are in the scientific, technical field while ERIC attempts to serve the educational community--generally the poorest economic segment of society.

I specifically want to compliment the proposed Access ERIC activity for including the Council of ERIC Directors' ideas and suggestions into this proposed activity.

At the risk of repeating myself, may I strongly recommend to OERI that before any new activity, product, or service is implemented and funded in the ERIC system, a careful examination of the requirements of the current system should be made. In other words, adequate funding of just the current activities must be provided before additional burdens are placed on the system. I have avoided going through massive statistics about usage, world-wide acceptance, etc. Nevertheless, I hope it is apparent to the Committee that the ERIC system has been gradually eroded by a lack of funding.

In closing, I want to again thank you for this opportunity to provide testimony on behalf of ERIC. I was fortunate to have been involved in a number of "firsts" in my career with ERIC. I thought that when I retired there would be no more "firsts" in ERIC. I was wrong. This is the first time that I have been able to testify before a Congressional group, and I thank you again.

ATTACHMENT

STRATEGIES FOR ERIC taken from "ERIC - The First Fifteen Years, 1964-1979" by Dr. Delmer J. Trester, pp. 199-200.

1. Forge a national effort on such linkers as school media specialists (school district-wide and individual school building levels); intermediate service agencies; teacher centers; and schools of education.
2. Collaborate with selected professional organizations and other groups in a regional seminar focusing on information awareness and access (e.g., school boards association, association of school administrators, elementary and secondary principals).
3. Explore possibility of using existing communication channels within professional associations and other user groups (e.g., special inserts to accompany organizations mailings).
4. Develop feedback loops to insure that products and services are responsive to user needs.
5. Maintain a file of users with similar educational problems to facilitate communication between groups which may share information.
6. Develop a plan for serving practitioners (teachers, principals, school board members, paraprofessionals, volunteers, etc.) in unserved non-metropolitan areas by utilizing existing telecommunications networks.
7. Identify needs to target user groups.
8. Explore ways to reduce the financial cost to consumers for accessing information bases.
9. Encourage, design, develop and/or conduct regional, State and local conferences to consider and initiate inter-organizational arrangements or networks. Involve participants in the planning and on-going guidance of the activities.

12. Develop audio-visual packages for outreach efforts to direct users. Develop attention getting "state-of-the-art" reports on current concerns.

13. Professionally produce a movie, slide-tape, and other promotional and training public [illegible] and multi-media kits on ERIC.

14. Design a [illegible] program for outreach awareness activities to direct contact groups, i.e., higher education, regional labs and others. Include training programs for: researchers, negotiators (state clarification), field agents.

15. Expand the technical assistance team activities begun during FY 79-80 to other user groups besides SEA's.

16. Develop and implement a Selective Dissemination of Information (SDI) service for ERIC citations specific to interest groups.

17. Develop a national "hot line" (free "800" telephone number) for information on education. Telephones will be staffed with information specialists, so an immediate answer may be given when possible, rather than merely a referral to another source.

18. Implement an active marketing effort through existing contractors to increase subscriptions to existing products and services.

19. Develop special resources of materials used to explain test results to parents and materials to explain testing process and test results to students.

20. Plan, develop, conduct, and evaluate awareness workshops for education personnel using telecommunications networks in underserved non-metropolitan areas (use gatekeepers or resource persons at each local site).

Mr. OWENS. Thank you.

Ms. Bjorncrantz and Dr. Felsher, has the quality of ERIC declined over the past five or six years while they experienced this level funding? Do you find any change in the service or the products?

Ms. BJORNCRANTZ. I don't see large changes in the material that is included in ERIC. Maybe the numbers in the report microfiche collection have gone down slightly. I do have a general impression that publicizing the system that was done in the early years, the heady days of the early 1970's, let's say, when there were ERIC database users conferences and more publications were coming across our desks from ERIC, it's been obvious to me that there have been funding problems and they have not been able to do what they had been able to do.

Mr. OWENS. Dr. Felsher.

Ms. FELSHER. No, I have not seen any change in the last decade at all. When I ask for a research or a search, I get a substantial number of articles and publications that I can look for. I have never gotten anything back that says, sorry, we can't find anything on this topic.

Mr. OWENS. So they have managed to maintain the quality of service despite the problems?

Ms. FELSHER. Yes.

Mr. OWENS. Do you, Ms. Bjorncrantz, ever inform patrons that you are getting the information through ERIC when you serve them through ERIC with statistics?

Ms. BJORNCRANTZ. I am reference librarian by training, and one of the things I recall being told to do is that you cite your source. So I am inclined to do that. But it's not done in all cases.

Mr. OWENS. This whole question of partners, would you say that libraries across the country are partners? Does that definition apply to them, or is it too limited?

Ms. BJORNCRANTZ. Oh, we are definitely partners. We have been partners from the very beginning. But I think in my testimony I called us ambassadors, a term that shows that we are even more active than partners. But we have been partners in the past and we are certainly willing to be partners in any way in the future.

Mr. OWENS. So we are talking about two or three thousand partners then. What is the estimated number of libraries that use ERIC, that have ERIC?

Ms. BJORNCRANTZ. Well, there are about 750-plus ERIC microfiche collections in the country, and of course people at those sites would be most aware of ERIC and would serve as ambassadors for ERIC. But there are many more thousands of librarians that know about ERIC that would make referrals, way above and beyond 700-plus. It's in the thousands. I couldn't give you an exact figure. But they are in college libraries, university libraries, public libraries, specialized libraries that serve associations, serve nonprofit organizations, business libraries that have an interest in education. We are all out there.

Mr. OWENS. What about the professional, Dr. Felsher? ERIC has been in existence for a little more than 20 years, and if there is a professional who has never heard of ERIC and they are in the teaching profession or somewhere in the education profession,

would you say that they have been grossly uneducated? Is there something radically wrong with their education?

Ms. FELSHER. Well, there could be several reasons why this could occur. One of them is that perhaps they didn't further their education at an educational institution, rather taking inservice courses rather than going for a master's at a university or a college.

Mr. OWENS. But that is only a small percentage of people who do that?

Ms. FELSHER. A small percentage.

Mr. OWENS. The vast majority of educators out there get their education through regular teaching schools and should be exposed somewhere to ERIC.

Ms. FELSHER. Yes, but if you look at the State distribution up on the chart there, there are many small systems that are not members of the ERIC system and the teachers within those systems might not know it's there or might not be aware it's there, might not be capable or have the assistance of being put in touch with a situation where they could use it.

But what I have found is that many teachers in their undergraduate have not been exposed to it. Now, I have seen high school students exposed to ERIC, and perhaps that's where we should look. We should look to educate our children while they are in school that ERIC is out there so that when they go through college it's available, when they finish college and they enter their professions, they have that.

Mr. OWENS. Anyone with a graduate degree——

Ms. FELSHER. Oh, anyone with a graduate degree has to know ERIC is there.

Mr. OWENS. Administrators, principals, board of education personnel, State education personnel, there is something radically wrong if they are not familiar with ERIC?

Ms. FELSHER. Yes.

Mr. OWENS. So if they're not using that, either they find that it's not useful or——

Ms. FELSHER. It's not accessible. Or, invisible, as I called it. There are school systems that don't say we have ERIC.

Mr. OWENS. Would they be using it through librarians?

Ms. FELSHER. Oh, yes.

Mr. OWENS. And not recognize it?

Ms. FELSHER. Oh, yes, several might be. Many might be. But I have to say something. When I get my ERIC search back, it is set up so that ERIC is plastered right across the top of it. I know it's an ERIC search. It's a printed document that has a blue sheet, usually, on it. I don't know if every system has a blue sheet. Right up on top it says ERIC database. So I really can't visualize someone using an ERIC and not——

Mr. OWENS. Mr. Finn used in his testimony and some other documents from OERI, they keep citing the need for parents, that it should be useful for parents, too. Now, I find it very extraordinary that parents would be using any system of this kind generally. But you would say that if you did serve parents—and in your testimony you indicated that you provide a service to parents by providing them with readings to back up what you were doing—they would know about it? Is there some way they would know about it? Even

if you had it indicated on the bibliography that you gave them to read, would it really register that they were using ERIC?

Ms. FELSHER. Well, I guess I would have to say something first and say this is a search I ran to answer your questions and it was run through ERIC database, that I went down to the professional library, I gave them what we wanted to research, and this is the search that came back, and these are the articles that I felt were most pertinent, and that is why I am handing them to you now. It would be mentioned.

Mr. OWENS. The point I am dealing with and I guess you recognize is that the constant discussion about the failure to serve practitioners really bothers me because the service to practitioners problem is not a problem within the power of ERIC to deal with. The fact that people are not properly educated is one problem, and the fact that they are not motivated to use information to do their work is another problem, and the fact that not enough things are happening, not enough challenge out there for them to feel is another problem, all of which are beyond the scope and powers of the information provider to deal with.

It just strikes me as strange that that is constantly repeated. Journalists are used as an other example, that journalists would never use ERIC. Do journalists ever use databases at great length? Do they use the librarian who happens to be working for the newspaper to get information of that kind for them on large newspapers and the smaller publications? How often do they deal with subjects of this kind? Have you ever talked, as a reading specialist, ever been interviewed by journalists?

Ms. FELSHER. I don't think so.

Mr. OWENS. Mr. Hoover.

Mr. HOOVER. May I make a comment about the last question?

Mr. OWENS. Yes.

Mr. HOOVER. I think there is a great deal of confusion about what ERIC really is. The confusion exists as to what is an information system and what is a dissemination system. Now, ERIC as an information system collects, evaluates, indexes, abstracts, and makes available documents. It is a bibliographic database, and it provides references. It does not answer individual questions. A dissemination system is the type of system one would go to for answering questions where you have a specific—like, let's take statistics—how many teachers are there in Brooklyn or whatever it was. That is the kind of question that comes from the dissemination system where you would have an intermediary who may link you with a database or references.

I think one of the problems that we have had over the years is that there is this distinction, and we get tagged with the lack of ability to answer some very specific questions, when in reality we are providing a database with references and one takes those documents or references and does what they want with them and distills the information they want out of them.

This provides a great deal of difficulty and especially when we are talking about budgets, because you can always come up with the thing of, hey, this principal wanted this question answered and he couldn't get it answered and therefore ERIC is no good.

Mr. OWENS. You just used the word collect, and I am glad you used it instead of the word archiving. I noticed in the literature of OERI, they repeatedly refer to the archiving function of ERIC. I wondered if you invented it or the people within the ERIC system invented that, or was that one imposed upon you from the outside? It conveys an image to the population in general, I assure you, which is one that you are merely storing information, storing records, and it doesn't fit with the whole concept of ERIC.

Mr. HOOVER. Well, it is an archival system in the sense that when it was first started, as I told you, the idea was that all these research reports that the Government was funding, what happens to them. Usually, what used to happen at one time, the document came into the program or the project manager, and once they approved it and the bill was paid to the researcher. Then what happened, unless you were in the office of education at the time, three or four months later you would be lucky if you could find a copy. So it had that archival function attached to it.

For instance, there are a number of documents right now that are in the ERIC system that are one-of-a-kind. Let's take the papers that were used to create the famous commissioners report, oh, five or six years ago. I have forgotten the name of it.

Mr. OWENS. "Nation at Risk"?

Mr. HOOVER. "Nation at Risk." All of the original documents and research and papers have been collected together and reside in ERIC, so that at some point in the future, if they ever try to do the same type of thing again, at least those documents are available. Otherwise, they would have been lost.

Mr. OWENS. That's interesting, because we have another organization that is supposed to carry out that function of archiving the Federal Government's documents, the National Archives. Is it by accident that ERIC has the original and the only copy?

Mr. HOOVER. I don't know. At least in my experience, I saw a number of documents that the Government created, and I never knew that they were ever sent off to the archives. I know we got them.

Mr. OWENS. So the archiving function is one that you have in passing.

Mr. HOOVER. Right. That's right.

Mr. OWENS. But what you need to have is all of this to enable you to be able to describe and create a situation for retrieval. If the archiving function really had the kind of role that is implied in some of these statements, you are really acquiring and processing for use and not for occasional consultation. You are describing, analyzing, and making it possible for people to get access to it through a number of avenues, and the archiving is just a basic by-product of that?

Mr. HOOVER. I should explain. When I say archiving in this case, I am not talking about just having it sit someplace. One of the things about that particular document that is forgotten by those who talk about budgets, I said the system is labor-intensive and the simple process of indexing a document, that is not a simple process. Cataloging, librarians have reams of descriptions of how one goes about cataloging documents. Training a person to use that manual and follow all the rules, this is one of the problems I have with the

adjunct clearinghouses: my question would be, is an adjunct clearinghouse going to follow all the rules and regulations? That is 20 years of experience in that manual. And are they going to do it for nothing?

Mr. OWENS. My basic point here is that the National Archive doesn't need this.

Mr. HOOVER. No.

Mr. OWENS. They also process and catalogue documents.

Mr. HOOVER. Right.

Mr. OWENS. Not to be retrieved readily.

Mr. HOOVER. That's right.

Mr. OWENS. The way that you do. And just from a political public relations image point of view, the stress on the archiving I think is unfortunate.

Mr. HOOVER. Right.

Mr. OWENS. And maybe not by accident in some of the material that I have received about the restructuring.

Finally, Mr. Hoover, with your experience, what do you think would be an adequate budget to allow ERIC to perform adequately and even to take on a greater dissemination function and in various ways provide greater access? Would you agree with the $10 million that was mentioned by the other panel?

Mr. HOOVER. Yes. The only caution I would have about the $10 million is that I wouldn't give it to them all at once. It's like feeding a horse all at once to give them everything. I do believe that to try to restore——

Mr. OWENS. Well, the ground is pretty dry out there.

Mr. HOOVER. That's right. [Laughter.]

Mr. OWENS. You've been in a drought for so long.

Mr. HOOVER. Right. I would love to come back and run it if you would jump it from $5.7 million to $10 million. [Laughter.]

I would even leave my fishing for the time being.

No, seriously, I believe if you try to restore all of the functions, and particularly those outreach, we will call them, awareness and access types of activities and the products—we haven't talked about the reduction in products that has taken place over the years and the types of services, the interface that we used to have with librarians, such as those when we used to have workshops where we brought together the librarians and the ERIC microfiche collections and users and have conferences. We'd spend several days, one, talking about the system, its strengths and weaknesses, and this is where we got ideas. This is where we found out what kinds of products.

That is not being done today. In fact, as I understand it, with the travel restrictions they have had, it's lucky that project monitors even get to the clearinghouses once a year.

The other part of it is that, as Lynn pointed out, these are professionals. We used to brag about the level of education of the individuals in our clearinghouses. We averaged master's degree, and every one of them was usually a specialist in that particular clearinghouse. When they talk about reviewing documents and peer review and evaluating documents, that takes an individual who has experience and knowledge and education in that field, and you can't buy them for the dollars that we are paying now.

Most of the clearinghouses have had to go to piecework to try to avoid the overhead of colleges and universities. One of the things, you pass out documents and say, okay, I pay $5 an abstract or $10 for cataloging and index. This is the kind of thing the system is forced to.

Years ago you walked in and we had professionals who knew something. They were librarians who knew something about cataloging and indexing, in addition to the system. We had professionals who knew something about creating documents. The system creates its own documents, analysis, synthesis of the literature, these types of things. They are created within the clearinghouses. We have had to cut those drastically in the last 10 years. That kind of thing, if we were to restore it, $10 million is not a ridiculous figure.

Mr. OWENS. Finally, I think it was a sound decision for Congress, in view of budget constraints, to have the RFP confined to the 16 categories that we presently have for clearinghouses. But I wonder, would you comment on the ability of those 16 categories to really keep current, and in terms of image of serving the needs of present-day decision makers, be able to deal with topics that 20 years ago didn't stand out but do stand out now?

For example, national comparative educational systems, I don't know which one of the 16 clearinghouses would have that information. Do all have the capacity to deal with that portion of other national educational systems which relate to them? Particularly Japan, I am interested in the Japanese educational system and the Soviet Union's educational system. Would you pick up material that comes from the Soviet Union with respect to the education and discipline problems of delinquent boys? They have a great educator named Myakafsky who specialized in that and did a lot of work in that area and probably in the education of some of their minority populations they have some problems which are quite similar to some of the problems that we are faced with in our present society.

Would that kind of information, if it was in English and translated, get picked up in the system? And the education of bilingual youngsters who are going to become such a large part of the population proportionately in school in the coming years, will material on the education of bilingual youngsters anywhere in the world be picked up and those aspects of it that relate beyond just the linguistic part of it but to the organization of a system to deal with an alien population and a number of other issues that relate, will they be picked up somewhere in the system? Is the system able to breathe and expand and deal with that? Would the experiences of Third World countries be relevant in dealing with some populations, disadvantaged populations that we are going to be needing to focus on more?

Would all of those kinds of things be—if you made a conscious effort, can you fold them into those 16 categories? I would like your comment on that.

Mr. HOOVER. Yes, I believe that over the years we have done that. I must also add, however, that we have had to reduce that to some extent. One of the problems that has not been mentioned here about how costs escalate in the system is a number of years

ago when we passed in this country a new law on copyright. Every document, whereas once before we used to put in what we called uncopyrighted, unpublished documents, and we didn't have to worry about copyright. That's not true today. If I pick up one of the papers off this table to put it into the system, I have to go to the author of that paper and get a copyright release.

Now, the reason I bring this up is because this is difficult at times when you are handling foreign documents. The issue of cost, let's just take a foreign document. Let's suppose we did pick up a document from Sweden that dealt with handicapped children. We have to make sure that we get that person's release, and we are writing back and forth. And every time you have to go back and forth for something, that escalates the cost, the unit cost.

We have not been able to escalate or increase the number of foreign documents. And by the way, the foreign usage of ERIC is tremendous. The Italians have built an ERIC system. They were gracious enough to take myself and Ted Branhorst from the facility and pay our expenses for a week over there to help them in that system. The Organization of American States did the same thing in sending us to Chile years ago. We have had inquiries. The Japanese have been dying to create an ERIC-type system. They are big boosters of ERIC. There are a number of collections over there. I don't know how many times we have had foreign visitors.

The saddest thing is those from the Third World who did not have funds in order to use the system the way it could be used. I have always criticized the International Bureau of Education, IBE, for the activities that it could have done in terms of greater usage of ERIC outside the country.

But we have had individuals, and I have had a man from Holland one day in, and he gave me the devil because I said we couldn't take their documents unless it was in English, and he kept saying, but you're so well known and used internationally, you have the responsibility for handling all our literature.

There are no systems like ERIC outside of the United States handling education documents. We are the biggest in the world in that respect. But it needs nurturing, and what has happened over the years, gradually you have to decrease these activities and the creation of documents dealing with comparative education and the handling of their documents, we just don't have the funds that we once had.

Mr. OWENS. I think that is a good note to end on. I want to emphasize that we are a nation at risk partially because we don't now understand the value of information and we don't know how to use information. I expect that that will be corrected and services like the services of ERIC are going to be in great demand in the future. We have a job in terms of guaranteeing that it receives the kind of funding necessary and the kind of attention necessary to guarantee that we will be able to meet those needs and those demands when they are expanded.

In that process, this committee certainly is dedicated to using all available resources to try to be of greatest help possible. You are certainly all invited—you don't have to lobby this committee; lobbying is not the issue—you are all invited to please stay in close touch. The consultation of those who know the most about it would

be on our agenda. We would like to have your assistance and your help. I want to thank you again for appearing today.

At this point, I would have inserted into the record the prepared statement of Paula Montgomery, submitted in response to the committee's request as to her usage of the ERIC system in her work with the Maryland State Department of Education.

[The prepared statement of Paula Montgomery follows:]

TESTIMONY: Maryland Use of the Educational Resources Information Center (ERIC) System

Submitted by: Paula Montgomery
School Library Media Services
Division of Library Development & Services
Maryland State Department of Education
Baltimore, Maryland

Maryland educators' library and information needs are served by a number of educational agencies including the State Media Services Center at the Maryland State Department of Education. The State Media Services Center provides library and information service to the employees within the Maryland State Department of Education and to the Maryland educators working with grades PreK-12. For local school system educators, the center is a link to other libraries and a backup system for those with professional education libraries. Thirteen of Maryland's local school sytems have such professional libraries. The State Media Services Center also serves those eleven systems without professional education libraries to help provide "information equity."

The State Media Services Center collection is available to educators by telephone, regular mail, in-person visits, and an electronic bulletin board. The collection includes a book collection, curriculum guides, periodical collection, special reports, educational archival information, films and audio-visual items, special collections and public laws, and the ERIC microfiche collection. Access to materials is facilitated by regular bibliographic service - card catalog and general indexes including Current Index to Journals in Education (CIJE), among others, and computerized databases (DIALOG, BRS, CompuServe, the Source, Edvent, Betnet, ALANET, and MIRN). At the core of the department's service is the ERIC system. Without access to ERIC databases and documents, the State Media Services Center would be severely limited in assistance it could offer.

Operation of the State Media Services Center and Dissemination of ERIC Materials

Three professional staff members respond to requests daily from local school system personnel and department staff. The State Media Services Center staff have established contact persons in each of the twenty four school systems through the library media program. The liaisons, in turn, funnel requests to the center. Information is distributed from the State Media Services Center to local school system level library media staff and, finally, to school level library media staff.

Establishing use of the services including ERIC has required that the State Media Services Center staff travel to each local system. Staff members met with library media personnel, school administrators, principals, and teachers to introduce the service. Computer equipment was taken to teach training courses where teacher needs were answered immediately through searching. Sample ERIC documents were given to the teachers so that they could see the practicality of the system.

Constant dissemination of information has been a part of the public information plan. Flyers on database service (ERIC) have been sent to every school and, conferences are attended so that people can continue to be made aware of the service. Of course, the best promotion of the ERIC system has been by "word-of-mouth." Teachers using the system have had success (92%) satisfaction rate) with obtaining what they needed for their own professional course work and for curriculum materials. This has been communicated to their co-workers. Support of this program has been strong. The state has funded the project because of its impact on teachers.

Role of ERIC (State Media Services Center) Services in Education

Educators in the state are routinely asked to evaluate the services which the State Media Services Center provides. Because ERIC is used consistently with almost every request, this evaluation serves to highlight how educators both need and use the ERIC database and resources.

The following uses have been identified to media center staff.

ERIC and other database searches have been used to:

- develop student materials to improve writing skills;
- prepare for presentation to parent group in school;
- write a speech for PTA;
- gather information for strategy in counseling students;
- prepare for work on an interdisciplinary subject teaching team in middle school;
- implement a school volunteer program;
- prepare an exhibit for teachers;
- write an article for an educational journal;
- determine which vendor to use for equipment purchase;
- develop an innovative class project;
- prepare drug information for a new hyperactivity program;
- design a unit for using the National Aquarium;
- prepare a staff development program for principals and administrators;
- develop a materials bibliography to support new citizenship curriculum;
- gather information to work with an architectural committee in remodeling school facility
- develop a package to explain test scores to students and parents;
- develop a model for evaluating curriculum;
- design a new science education facility;
- gather information to improve student auditory services;
- write a proposal for funding; and
- develop criteria for teacher evaluation system.

This list could continue, given the 700+ requests from local school systems. One search can have major impact on the entire state education system. Although searches and individual requestor's needs remain confidential, the following examples may help to illustrate the impact of information gathered through ERIC and other documents.

State Level

Searches were completed on new directions in science and social studies. As a result of information, the state science and social studies curriculum frameworks were developed and have become law.

System Level

A large urban system used information on demographics and future education needs predictions to help formulate a ten year long-range plan.

School Level

A principal used information gathered through ERIC to develop a teacher improvement program.

Each example shows how both the ERIC database and clearinghouse functions have helped Maryland educators improve instruction for students and teachers.

Maryland State Department of Education
State Media Services Center
Statistical Report

Summary of Requests
July 1, 1986 - June 1, 1987

The State Media Services Center provided Maryland educators with a 1% increase in the number of online computerized searches during eleven months of FY 1987. The figures shown indicate the number of requests for information which were answered by searching the ERIC database and others through services such as Lockhead DIALOG, BRS, the Source, and CompuServe. These figures do not include daily use of EDLINE for current information.

Agency	Number of Searches
Local School Systems	701
Maryland State Department of Education	558
Related Education Agencies (Public Libraries, Nonpublic Schools, etc.)	27
Total	1,286

Of note are the searches completed for specific divisions within the Maryland State Department of Education as provided.

Agency	Number of Searches
Administration	28
State Competency	11
Certification	28
Correction Education	27
Compensatory Education	69
Library Development (includes development of bibliographies for all other subject areas)	138
Instruction	128
Instructional Television	19
Special Education	36
Staff Development	9
Vocational Education	65
Total	558

All the searches quantified above were delivered to the educators with evaluation sheets. Of the evaluations returned (40%), 98% of the searches were considered appropriate to the needs described. Seventy eight percent of educators were repeat users.

Educators returning the evaluations explained that the material gathered from the information would be used in the following manner:

Type of Work	Percentage Responding
Administrative decisions	18%
Classroom improvement	19%
Curriculum design	18%
Research and study	35%
Other (personal development, etc.)	10%

After educators reviewed the completed searches or bibliographies distributed to school systems, they were able to request ERIC documents or periodical articles free of charge. The figures cited indicate the number of requests for ERIC microfiche and journals filled through the center. These requests represent needs which could not be filled in the individual schools or professional libraries at the school system level.

Agency	Number of ERIC Microfiche Copied and Distributed from the Master Collection at the State
Local School Systems	2,932
*Maryland State Department of Education	129
Related Agencies	229
Total	3,290

*(ERIC documents were used onsite and do not need to be copied as often)

Journal articles and other periodical requests were also copied and sent to the requesting educator free of charge. These are requests for information which could not be filled in local school systems. Citations were identified through ERIC searches.

Agency	Number of Pages of Periodical Articles Distributed from the State Media Services Center
Local School Systems	2,424
Maryland State Department of Education	1,962
Related Agencies	455
Total	4,809

Mr. OWENS. The committee now stands adjourned. Thank you all for being with us today.

[Whereupon, at 1:30 p.m., the subcommittee was adjourned.]

[Additional material submitted for the record follows:]

TESTIMONY FOR THE RECORD FOR THE COMMITTEE ON EDUCATION AND LABOR, SUBCOMMITTEE ON SELECT EDUCATION, BUDGET HEARING, JULY, 1987.

By: Robert E. Chesley
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I appreciate the opportunity to comment on the plans for the Educational Resources Information Center (ERIC) as set forth in several Department of Education planning documents.

Because experience is relevant to the perspective I have on the use of educational information, the following is a brief summary: Graduated from Stanford University with B.S. in Physical Sciences and M.A. in Education. Spent fifteen years as a classroom teacher and department head. Served for three more years as business manager of an independent school. During time as a teacher was awarded American Association of Physics Teacher's Outstanding Teacher Award. Served as Associate Editor of The Physics Teacher. Served for six years as the high school representative on the College Entrance Examination Board Physics Committee for the development of the physics achievement test. Spent sabbatical year at Harvard University as Research Associate in the development of the Harvard Project Physics curriculum. Spent several summers conducting institutes in physics teaching for teachers and teacher trainers in this country and abroad. Through Ford Foundation participated in the develcpment of a physics curriculum for the Philippines. In 1970 began working for the U.S. Office of Education dissemination program. Provided on-site technical assistance in planning and carrying out

dissemination activities to more than twenty-five State education agencies. For eight years, until 1982, worked with the ERIC program, the last five years as Director. Presently working as a consultant in computer applications and education, including professional development seminars for school faculty and administrators on accessing educational information. Serving on local and national education committees and as a trustee of an independent school.

The point to be made by the experience described above is that despite twelve years working with the Department of Education, the majority of my experience is that of a teacher and administrator dealing with educational issues at the local level. In addition, I have a thorough understanding of educational dissemination and information systems and the process of educational change and improvement.

The ERIC system has been in operation for over twenty years. Approximately $100,000,000 of taxpayer money has gone into funding the most extensive and comprehensive educational data base in the world. The original creators of the system did a remarkable job in designing a system that has been compatible with and enhanced by the technological advances that have since occurred.

ERIC serves many users. It makes available unpublished materials that can be used by different constituents interested in education, among whom are researchers, teachers and administrators. Also, other groups such as school board members

wrestling with policy considerations and lay citizens attempting to improve educational options for their children can select from the 600,000 references in ERIC the documents that deal with their specific needs.

In the late 1970s an effort was made to enter increased numbers of documents dealing with the needs of teachers and administrators. At the same time, a number of changes were made in the system to allow practitioners to access more easily this information: manuscripts were tagged by the type of user and a document-type index (e.g. research report, curriculum guide) was added to the journal, Resources in Education.

The system contains information of interest to a wide spectrum of users. However, not everyone appreciates documents designed for other users. Researchers are critical that the documents intended for the practitioners are not of sufficient quality to be in the system because they deal with untested procedures, and practitioners complain that the research reports are of no use because they are unintelligible. To its credit, the system is capable of meeting the needs of both groups.

Let me discuss briefly how practitioners use and do not use the ERIC file. First of all, many of them do not use ERIC. There is not a tradition of information use in education, and teachers do not tend to turn first to the ERIC file for help in solving their problems. There are several reasons for this. They feel they are too busy; they may find it easier to ask a colleague; they may not know how to go about using the system.

In fact, it may not even occur to them. However, if you sit down with the average teacher and show him or her a few of the documents, products or digests that are available in that teacher's area of interest, considerable enthusiasm is invariably shown.

Many examples exist concerning how administrators use the ERIC system to assist in developing new programs, curriculum, or to weigh pros and cons about controversial issues such as extended-year schools. Classroom teachers can use curriculum oriented materials in ERIC in more specific ways to improve their classroom offerings. For example, if a physics teacher wants to introduce a concept through laboratory experimentation, but the equipment to do so is very costly or unavailable, it is possible to use computers to simulate situations and provide students with "experimental data." The exercise can be very similar to actual sampling of data, complete with errors of measurement. The teacher has several choices: do nothing, spend fifty or one hundred hours in devising an original experiment, or use ERIC to see what others may have done that can be adapted. The results of a computer search (see Appendix 1) show several of the most recent relevant documents in ERIC. It is hard for any teacher who is truly interested in carrying out this project not to become excited by the titles of the appropriate documents that can improve their classroom presentations and save countless hours of effort.

Teachers tend to listen to the advice and counsel of colleagues in preference to using a data base. It has been clearly shown in research and demonstration projects that educators are more likely to use information if it comes from a colleague or other person than if it comes from a more impersonal source. This is also demonstrated clearly in the experience of the Agricultural Extension Service. However, the tradeoff is that it would cost hundreds of millions of dollars a year to have the educational equivalent of the Agricultural Extension Service. Until such commitment to education occurs, having a data base such as ERIC where educators can go and serve their own information needs is a viable and remarkably inexpensive alternative. According to the ERIC User Study, millions of questions do get answered each year for researchers, teachers, administrators and others. It is hard to escape the conclusion that if additional dollars were directed at publicizing and making ERIC more available to the teachers and administrators of the country, there could be much greater use and benefit from the information that is there ready to be used. Once the system is in place, almost unlimited use of the information can be made at no additional cost. Although much use is made of ERIC, the potential for its use is considerably more vast.

Some of the criticism that has been directed at ERIC deals with the information system not meeting the needs of one or another group of constituents. In the past, this criticism has often come from users who do not understand the difference

between an information system and a dissemination system. Frequently these individuals want answers, not references. ERIC is an information system; it collects, evaluates, indexes, abstracts, and makes available documents that can meet the needs of users. As a bibliographic data base it contains references, not answers to questions. Answers to questions can indeed be provided by a dissemination system where users link with ERIC through an intermediary who can help them define their problems and interpret information which has been retrieved. Although there are elements of a dissemination system in ERIC such as linkage at Clearinghouses, it is basically a bibliographic information system.

ERIC needs to be viewed as a basic tool. Although it has undergone a number of changes and improvements over the years, as a basic tool it should not need to undergo fundamental change with each new constituent need or new idea for how it might change, without regard to how those changes might affect other users. Several years ago, the company making vise grips had a contest to see how many ideas people could think of for how vise grips might be used as a tool. There were many. None of them involved redesigning the tool. More effort needs to be spent in creative design building dissemination systems around ERIC, and less effort in repeated attempts to redesign a proven model.

ACCESS ERIC

As mentioned above, one of the ways to serve education is to make ERIC more widely available. Awareness of what ERIC is and

how it can be used is fundamental to such an endeavor. Ideas directed at accomplishing this goal are addressed in the ACCESS ERIC activity proposed by the Department of Education.

It is true that ERIC has not been well advertised and promoted among the several million educators in the United States. A well funded national advertising campaign designed to affect the behavior of this many people can easily cost millions of dollars. In the past, the priority has been first to maintain the integrity of the data base development and then to spend the additional available dollars in high-leverage activities such as working with standing order customers. These are the libraries which purchase the ERIC materials and then, in turn, work with hundreds or thousands of individual users. The fact that ERIC's potential is so much greater than has been realized, despite the considerable and cost effective use that <u>is</u> made of the file, makes a large scale promotion effort enticingly desirable.

There is discussion of cooperation between programs. It has been my experience that among programs in fierce competition for administration dollars, there is more talk and superficial cooperation than meaningful action. Cooperation among such programs requires attentive leadership from a source that can demand and follow up on the desire for cooperation. As mentioned above, there is more need to spend time being creative concerning how ERIC can be used rather than in redesigning the system for each user group with whom cooperation is desired. However, there are meaningful ways in which ERIC can indeed be responsive. For

example, it can tag all documents from a given source with a common identifier which provides the powerful ability to retrieve all of the organization's accepted documents from the file with ease. This is done with State Education Agencies, among others. Tags indicating the type of user for whom the document is likely to be of interest and other features of the system allow similar responsiveness to the needs of individual groups.

In discussing those groups that ERIC should serve, a large number of constituent groups are mentioned. Since there are so many, I would be concerned if they were to receive anything approaching equal resources. It is within schools and classrooms through teachers and administrators that educational research, policy and theory becomes operational. There should be a resulting priority to help practitioners to become knowledgeable and to utilize the ERIC resources. Therefore, a more highly targeted approach would be appropriate. Because many of the issues are the same, the other constituent groups are not disenfranchised but may drink from the same fountain.

As the plans for ACCESS ERIC become operational, I would hope that national needs analyses and assessment will not be overemphasized, particularly in the beginning. The dollars proposed are few enough for the broad work outlined. For several reasons, sorely needed program dollars should not be consumed by tasks that have already been accomplished or for which there are alternative and more cost effective procedures. For example, needs of American educators are clearly demonstrated by thousands

of specific questions asked of ERIC Clearinghouses and information centers such as the San Mateo Educational Reference Center. Effectiveness of the program can be tested after it has been in operation several years and has had a chance to affect behavior of educators.

The most important activity suggested is the training of intermediaries to act as links between users and the information base. Research has shown the presence of a linker to be a critical element in the transformation of raw information into educational improvement. Furthermore, there is a body of potential linkers who are in place in almost every school in the country. These are the school librarians or media specialists. If their jobs could be redefined in a relatively small way to include the linkage function, and then they could receive training and become knowledgeable about ERIC information resources, they could provide the vital "missing link" in the process of educational change and improvement which culminates in knowledge utilization. I have seen great increases in awareness and use of ERIC come about in schools with only three or four hours a month of effort on the part of the school librarian. If such activity could be carried out nationwide, it could make an important difference.

In the proposal for ACCESS ERIC there are a number of excellent suggestions in the section dealing with creating ERIC partners. The recognition, awards and training suggested have the potential of leveraging a great deal of cooperative action.

With regard to the suggestion of the use of an 800 number, I have several comments and concerns. First, it is an appealing suggestion that would provide immediate and valuable access to ERIC and its information resources. However, scale and cost in a nationwide effort should be examined. If effective national marketing of an 800 number is accomplished, there should be considerable response. If one or two 800 lines are provided, one would expect frustration and alienation in the attempt to dial a continuously busy line. It is not hard to project use of twenty or twenty-five lines if marketing is successfully accomplished. If so, the annual cost in salaries alone to operate this aspect of ACCESS ERIC would come to over $500,000. Such an activity should be initiated with caution and sufficient funds lest the effort be so insignificant that it is ineffectual.

Document development is mentioned as an activity of ACCESS ERIC. ERIC Clearinghouses over the years have had a great deal of experience in drawing on the data base to produce summaries of information on important topics within their scopes of interest. These documents, called "information analysis products," and a recently developed product called ERIC Digests are some of the more important and useful documents in the ERIC system. Although there are many other individuals and groups within the educational system who would like to have support for producing documents, I would hope that the Department would turn to the Clearinghouses for a significant portion of this product development. In the process of their daily work, the

Clearinghouse staffs become very familiar with issues, research, and advantages and disadvantages of proposed solutions to educational problems. In addition, they do so from a neutral corner, unaligned with advocates of particular philosophies.

The question of revenue generation by increasing user fees needs to be very carefully considered. As a practitioner with limited resources, I am much more inclined to turn to the sources announced in Resources in Education because they are fully available at bargain prices, e.g. a 500 page document on microfiche costs about $0.75. In comparison, articles announced in Current Index to Journals in Education may be more succinct and appropriate, but cost $10 or $12 apiece for a four page article through University Microfilms. User fees can have a profound effect on use of an information source. If we really want to help users across the barriers to the use of information, it would be better to create awareness and gain a history of use and a critical mass of ERIC users that will help pull other educators along on a growing bandwagon before introducing user fees and increasing the cost of acquiring information. With over $100 million per year presently spent by users (as shown by the ERIC User Study), the government is already operating a highly cost efficient information system and is leveraging excellent coordinate support from its users. Don't deaden ERIC's potential with user fees at this critical time.

With regard to the budget for the ACCESS ERIC project, $500,000 is mentioned. As outlined above, this amount of funding

is both minimal for the massive job that needs to be done and exciting in terms of the prospects of what can be done that is not presently being accomplished. With a proposed budget for ERIC of $6,1 million for FY88, I am concerned about the source of the funds for ACCESS ERIC. The ERIC system simply cannot continue to operate as a viable information base if these funds are taken from the operating base of the system. In 1979 when the consumer price index was 195, the ERIC budget was $5.6 million. Ten years later, when $6.1 million is being proposed, the consumer price index is over 350. This means that there has been a decrease in the real dollars committed to operating the system of over 40% in the past ten years. Others can testify to the effect this has had in the past five years. I can testify that in the first of these five years, the effect was to reduce services and personnel, to drive away experienced personnel and to create problems in the indexing accuracy that is necessary to retrieve documents, by the use of significant numbers of new and untrained personnel. This is an effect which is hidden and whose total impact may never be known. These effects may well have continued and the situation worsened. It is vital to maintain the integrity of the data base and not to cripple it with still another large budget cut in the process of popularizing it. Doing so would seem analogous to the man who spends his last dollar for a wallet.

ADJUNCT CLEARINGHOUSES

Although the proposal for adjunct Clearinghouses has appealing aspects such as strengthening cooperation and collaborative arrangements, it poses problems and even hazards for the ERIC system. Let me mention some considerations that are not brought out in the paper.

One must ask what is the motivation for the private sector to make such a contribution? When serving as the Director of ERIC, I had discussions with more than one organization that wanted to input large numbers of documents into the system. They were also willing to assume some Clearinghouse functions by doing the indexing and abstracting. Further questioning revealed that their basic motivation was to control their own documentation at ERIC's expense. Once their documents were in the system and appropriately indexed, they would be able to retrieve them as well as to benefit from the long term archival capabilities of the ERIC system. It appeared to me that while a number of the documents in question were indeed appropriate for inclusion in ERIC, many were not. There is legitimate concern in such an arrangement not of being able to maintain appropriate selectivity of documents being entered into the system. For example, if only fifty documents a month which were inappropriate for ERIC were actually entered, there would be significant costs both to ERIC and to its users. Ignoring for the moment the cost of processing and microfilming the documents, the cost to standing order customers alone would amount to an additional $72,000 a year.

(50 documents per month x 12 months x 800 standing order customers x .15 per microfiche.) This would be a heavy cost to impose on users.

In a decentralized information system such as ERIC, there are many standards which have to be imposed for the sake of uniformity. The ERIC system has, over the years, developed an impressive document called "The ERIC Processing Manual" which defines the system operating processes and guidelines. It takes much time, training and experience to master the concepts contained in the Processing Manual. It also takes careful monitoring by the ERIC management team and the central processing Facility to maintain the standards set out in the manual. Sometimes it has been difficult to maintain the uniformity called for within the ERIC Clearinghouses themselves. Accomplishing this task with one or several organizations staffed by volunteers and perhaps understaffed to conserve company funds would be difficult at best. In a volunteer operation there is a hazard that you will get what you pay for___or worse.

Should the concept of adjunct Clearinghouses be adopted, I would strongly urge that it be tested at one site so that the experience could be analyzed and the problems more clearly understood before enlarging the operation.

CLEARINGHOUSE REALIGNMENT

One of the Department papers contained a proposal for realigning the ERIC Clearinghouses and introducing a new Clearinghouse on Educational Statistics. I did not find any

discussion on the background or reasons for this realignment. The abbreviated scopes of the Clearinghouses and the lack of comparison with previous scopes did not permit a clear picture of the changes which are being proposed. A number of the names of Clearinghouses had been changed, and the Teacher Education Clearinghouse does not appear to remain. There have been realignments and name changes of Clearinghouses in the past, and certainly it can be done if there is a purpose to be served. There may be good reasons for such realignment, but none were given that would overcome the confusion created in the user community where the Clearinghouses have worked hard to establish an identity with their users.

A Clearinghouse on Educational Statistics might be useful, especially if a push is underway to include descriptions of statistical data bases that are available for computer analysis. If this is the case, there would be significant overlap in responsibilities with the renamed Clearinghouse for Assessment and Evaluation.

CDROM

The most exciting technological advance for information systems in recent years is the emerging development of Compact-Disk-Read-Only-Memory (CDROM) technology. CDROMs have the capacity to contain 500 megabytes of data, equivalent to more than 100,000 pages of text. Six or seven years of ERIC document indexing and abstracting data can be contained on one CDROM disk

which can be reproduced at minimal cost. Three companies are presently marketing CDROM search systems for the ERIC file. In the next few years, many libraries will be acquiring the capability to search library reference materials on CDROM, and some already have the capability. When this relatively inexpensive technology is more widely available, as computers are today, it will place the capability of performing quick and inexpensive searches of ERIC in the hands of most educators at the local level. At that point it may become important for administrators at the Federal level to retrieve some of the dissemination studies (which can be found in ERIC) and concentrate on the process of educational change and how it can be made more effective. Then, the ERIC System can proceed in the role for which it was designed: an information system that will provide the data on which to base rational decisions regarding change and improvement in education.

Testimony Submitted on Behalf of the

American Educational Research Association

by

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to the

United States House of Representatives
Subcommittee on Select Education

on

Educational Resource and Information Clearinghouse System (ERIC)

Thursday, July 30, 1987

1230 SEVENTEENTH STREET, N.W., WASHINGTON, D.C. 20036 (202) 223-9485

Mr. Chairman, and Members of the Committee, I am Laurie Garduque, Director of Governmental and Professional Liaison at the American Educational Research Association. AERA represents the most prominent professional organization of nearly 15,000 individuals concerned about improving the quality of education through educational research and its applications. As an organization for researchers and scholars, we appreciate the interest you and the Committee have shown in the Educational Resource and Information Clearinghouse (ERIC) system. Thank you for the opportunity to present our views.

My comments on ERIC focus on a very narrow set of issues: the system's viability, the Department of Education's redesign proposal, and the plan's impact on other programs and activities at the Office of Educational Research and Information. First, ERIC is a unique information and retrieval system. While its purposes and functions should be preserved, the system's capabilities and capacities to serve current and future users need to be strengthened and improved. Updating ERIC's technology is certainly on that list. In a rapidly changing technologically advanced society, with increasingly sophisticated information services, ERIC must keep apace to hold on to users and attract prospective users. Further, ERIC has not been effectively linked with other information gathering and dissemination networks, including international data systems, statistical information resources, and the national research centers and regional laboratories.

On the Department's redesign proposal, AERA has taken greater interest in the process generating the proposal than in its substance. AERA was pleased to see OERI take the initiative in critically examining the program. The review itself, including convening an outside panel of advisors and soliciting additional

views through commissioned papers, deserves special mention. Although not without some problems, AERA believes the review was conducted openly and responsibly. At the time, questions were raised about the review panel's independence as well as individual panel member's qualifications. Our inquiries about the panel's integrity and credibility found those concerns groundless. While many in the education community may take issue with the document that emerged from the process, ERIC stands to benefit from the debate and discussion that have ensued since, "ERIC in Its Third Decade", was released. OERI may have acted a little hastefully in pursuing such an ambitious proposal without sufficient opportunity for public review and input. But the motivation behind strengthening and improving the system is genuine.

AERA is interested in strengthening and improving ERIC along the broad outlines OERI has proposed. The goals of redesign are laudable, yet to mount those efforts within the context of existing funding is neither practical or feasible. That brings me to my final point. As sound and as reasonable as the proposed changes might appear, new focuses and expanded services should not be pursued at the risk of jeopardizing either current ERIC activities or other OERI programs. For example, trade-offs should not be made between ERIC's archival and dissemination functions. ERIC serves an important function as a repository for documents not amassed in any other system. Those documents are the raw data for the work of many researchers and scholars. ERIC should bear in mind, however, that maintaining stores of the "fugitive literature" is not a mandate, or a sound and responsible policy in and of itself. And that ERIC must do its part to ensure that the documents live up to their billing as timely, useful, and important information that should be made available and accessible.

Mr. Chairman, AERA wants to make it perfectly clear to you and the Committee that reprogramming of research funds for the purposes of modifying or expanding ERIC is totally unacceptable. Afterall, an effective clearinghouse system can only perform high quality services if it has a continuing supply of high quality knowledge and information to store. Failure to maintain stable and continued funding for the national research centers, regional laboratories, and individual researchers currently supported by OERI would have grave consequences for the knowledge base essential to progress in education. Budget cuts over the last five years have greatly reduced the scope of OERI's activities. According to a recent GAO report, fiscal resources for producing education statistical information have declined by nearly 30%, and for research by over 50% in real terms. Cost cutting measures have virtually eliminated support for independent research by individual investigators. As a consequence, OERI no longer has the capacity to stimulate research in areas of critical need or to respond to creative and innovative ideas from the field. There is no flexibility in th OERI research and development budget for the current fiscal year to accommodate changes in ERIC. Hopefully, the 1988 budget will bring some relief. Until additional resources are available, however, AERA urges the Committee and OERI to move conservatively in considering changes in ERIC.

One final comment is appropriate here. We understand plans to recompete the ERIC awards must go forward if the system is to maintain continuous operation. Any break in the cycle of funding would be a hardship to existing clearinghouses and disruptive to the field. At this late date, it might be tempting to delay the competition and provide for ERIC in some other way. But AERA cannot overemphasize the importance of making awards on the basis of open competition and peer review. Open competition and peer review have proven to be effective mechanisms for

ensuring the quality of research and related activities, such as data gathering and dissemination. We encourage the Committee and OERI to not compromise the principle of competitive awards on the basis of merit in considering ERIC's immediate future.

Thank you for the opportunity to comment. The members of AERA are dedicated to the strengthening and improvement of education research and its dissemination as a necessary underpinning for the long-run reform and continued progress of American education. We look forward to working with you and Members of the Committee toward that end.

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